

Course Code	Part	Study Components & Course Title	Credit	Hours/Week	Maximum Marks		
					CIA	ESE	Total
<b>SEMESTER – I</b>							
23UTAML11 23UHINL11 23UFREL11	I	Language – I பொது தமிழ்- I: தமிழ் இலக்கிய வரலாறு -I/ Hindi-I French-I	3	6	25	75	100
23UENGL12	II	General English – I	3	6	25	75	100
23UCOAC13		Core – I : Financial Accounting I	5	5	25	75	100
23UCOAC14		Core –II : Principles of Management	5	5	25	75	100
23UCOAE15-1 23UCOAE15-2 23UCOAE15-3	III	Elective - I Programming in C and Lab/ Python Programming and Lab/ Computer Fundamentals	3	4	25	75	100
23UTAMB16/ 23UTAMA16	IV	Skill Enhancement Course – 1* NME-I/ Basic Tamil – I/ Advanced Tamil – I	2	2	25	75	100
23UCOMF17		Foundation Course: Fundamentals of Business Studies	2	2	25	75	100
<b>Total</b>			<b>23</b>	<b>30</b>			<b>700</b>
<b>SEMESTER – II</b>							
23UTAML21 23UTAML21 23UTAML21	I	Language – II பொது தமிழ் -II: தமிழ் இலக்கிய வரலாறு -2/ Hindi-II French-II	3	6	25	75	100
23UENGL22	II	General English – II	3	6	25	75	100
23UCOAC23		Core – III : Financial Accounting II	5	5	25	75	100
23UCOAC24		Core –IV : Business Law	5	5	25	75	100
23UCOAE25-1 23UCOAE25-2 23UCOAE25-3	III	Elective - II Office Automation and Lab/ (Evaluation Theory Only) Programming in C++ and Lab/ Information and Cyber Laws	3	4	25	75	100
23UTAMB26/ 23UTAMA26	IV	Skill Enhancement Course – 2* NME-II/ Basic Tamil – II / Advanced Tamil – II	2	2	25	75	100
23USECG27		Skill Enhancement Course – 3 Internet and its Applications (Common Paper)	2	2	25	75	100
23UNMSD01		Language Proficiency for employability: Overview of English Communication**	2	-	25	75	100
<b>Total</b>			<b>25</b>	<b>30</b>			<b>800</b>

SEMESTER – III							
23UTAML31 23UHINL31 23UFREL31	I	Language – III பொது தமிழ் -III: தமிழக வரலாறும் பண்பாடும் Hindi-III French-III	3	6	25	75	100
23UENGL32	II	General English – III	3	6	25	75	100
23UCOAC33	III	Core – V : Corporate Accounting I	5	5	25	75	100
23UCOAC34		Core –VI : Business Mathematics and Statistics	5	5	25	75	100
23UCOAE35-1 23UCOAE35-2		Elective - III Programming in JAVA and Lab/ Web Technology (PHP) and Lab/	3	4	25	75	100
23UCOAS36	IV	Skill Enhancement Course – 4: Stock Market Operations	1	1	25	75	100
23UCOAS37		Skill Enhancement Course – 5: New Venture Planning & Development	2	2	25	75	100
		Environmental Studies		1			
		<b>Total</b>	<b>22</b>	<b>30</b>			<b>700</b>
SEMESTER – IV							
23UTAML41 23UHINL41 23UFREL41	I	Language – IV பொது தமிழ் -IV: தமிழும் அறிவியலும் Hindi-IV French-IV	3	6	25	75	100
23UENGL42	II	General English – IV	3	6	25	75	100
23UCOAC43	III	Core – VII : Corporate Accounting II	5	5	25	75	100
23UCOAC44		Core –VIII : Company Law	5	5	25	75	100
23UCOAE45-1 23UCOAE45-2		Elective - IV Relational Database Management System/ Introduction to Data Science	3	3	25	75	100
23UCOAS46	IV	Skill Enhancement Course – 6: Brand Management	2	2	25	75	100
23UCOAS47		Skill Enhancement Course – 7: Clearing and Forwarding in Export and Import	2	2	25	75	100
23UEVSG48		Environmental Studies	2	1	25	75	100
		<b>Total</b>	<b>25</b>	<b>30</b>			<b>800</b>
SEMESTER – V							
23UCOAC51	III	Core – IX: Cost Accounting I	4	5	25	75	100
23UCOAC52		Core –X: Banking Law and Practice	4	5	25	75	100
23UCOAC53		Core –XI: Income Tax Law and Practice I	4	5	25	75	100
23UCOAD54		Core –XII: Project with Viva-Voce	4	5	25	75	100
23UCOAE55-1 23UCOAE55-2		Elective - V Financial Management / Indirect Taxation	3	4	25	75	100
23UCOAE56-1 23UCOAE56-2	Elective - VI Software Engineering+ (UML Lab) / Object oriented Analysis and Design+ (UML Lab)	3	4	25	75	100	
23UVALG57	IV	Value Education	2	2	25	75	100
23UCOAI58		Summer Internship <sup>++</sup>	2	-	25	75	100
		<b>Total</b>	<b>26</b>	<b>30</b>			<b>800</b>

SEMESTER – VI							
23UCOAC61	III	Core – XIII: Cost Accounting II	4	6	25	75	100
23UCOAC62		Core –XIV: Management Accounting	4	6	25	75	100
23UCOAC63		Core –XV: Income Tax Law and Practice II	4	6	25	75	100
23UCOAE64-1 23UCOAE64-2		Elective – VII: Entrepreneurial Development / Human Resource Management	3	5	25	75	100
23UCOAE65-1 23UCOAE65-2		Elective – VIII: R Language / Practical Tally	3	5	25	75	100
23UCOAF66	IV	Professional Competency Skill: General awareness for Competitive Examination	2	2	25	75	100
23UCOAX67	V	Extension Activity	1	-	100	-	100
<b>Total</b>			<b>21</b>	<b>30</b>			<b>700</b>
<b>GRAND TOTAL</b>			<b>142</b>				<b>4500</b>

#### List of Non-Major Elective Courses Offered to Other Departments

Semester	Course Code	Course Title	H/W	C	CIA	ESE	Total
I	23UCOAN16	Digital Banking	2	2	25	75	100
II	23UCOAN26	Fundamentals of Fintech	2	2	25	75	100

\* PART-IV: NME / Basic Tamil / Advanced Tamil (Any one)

Students who have not studied Tamil upto 12<sup>th</sup> Standard and have taken any Language other than Tamil in Part-I, must choose Basic Tamil-I in First Semester & Basic Tamil-II in Second Semester.

Students who have studied Tamil upto 10<sup>th</sup> & 12<sup>th</sup> Standard and have taken any Language other than Tamil in Part-I, must choose Advanced Tamil-I in First Semester and Advanced Tamil-II in Second Semester.

\*\* The course “23UNMSD01: Overview of English Communication” is to be taught by the experts from Naan Mudhalvan Scheme team. However, the faculty members of Department of English should coordinate with the Naan Mudhalvan Scheme team for smooth conduct of this course.

††Students should complete two weeks of internship before the commencement of V semester.

**Choice Based Credit System (CBCS), Learning Outcomes Based Curriculum Framework (LOCF) Guideline Based Credit and Hours Distribution System for all UG courses including Lab Hours**

**First Year – Semester-I**

<b>Part</b>	<b>List of Courses</b>	<b>Credit</b>	<b>No. of Hours</b>
Part I	Language – Tamil	3	6
Part II	English	3	6
Part III	Core Theory, Practical & Elective Courses	13	14
Part IV	Skill Enhancement Course SEC-1 (NME-I)	2	2
	Foundation Course	2	2
		<b>23</b>	<b>30</b>

**Semester-II**

<b>Part</b>	<b>List of Courses</b>	<b>Credit</b>	<b>No. of Hours</b>
Part I	Language – Tamil	3	6
Part II	English	3	6
Part III	Core Theory, Practical & Elective Courses	13	14
Part IV	Skill Enhancement Course -SEC-2 (NME-II)	2	2
	Skill Enhancement Course -SEC-3 (Discipline / Subject Specific)	2	2
		<b>23</b>	<b>30</b>

**Second Year – Semester-III**

<b>Part</b>	<b>List of Courses</b>	<b>Credit</b>	<b>No. of Hours</b>
Part I	Language - Tamil	3	6
Part II	English	3	6
Part III	Core Theory, Practical & Elective Courses	13	14
Part IV	Skill Enhancement Course -SEC-4 (Entrepreneurial Based)	1	1
	Skill Enhancement Course -SEC-5 (Discipline / Subject Specific)	2	2
	E.V.S	-	1
		<b>22</b>	<b>30</b>

### Semester-IV

<b>Part</b>	<b>List of Courses</b>	<b>Credit</b>	<b>No. of Hours</b>
Part I	Language - Tamil	3	6
Part II	English	3	6
Part III	Core Theory, Practical & Elective Courses	13	13
Part IV	Skill Enhancement Course -SEC-6 (Discipline / Subject Specific)	2	2
	Skill Enhancement Course -SEC-7 (Discipline / Subject Specific)	2	2
	E.V.S	2	1
		<b>25</b>	<b>30</b>

### Third Year

#### Semester-V

<b>Part</b>	<b>List of Courses</b>	<b>Credit</b>	<b>No. of Hours</b>
Part III	Core Theory, Practical, Project & Elective Courses	22	28
Part IV	Value Education	2	2
	Internship / Industrial Visit / Field Visit	2	-
		<b>26</b>	<b>30</b>

#### Semester-VI

<b>Part</b>	<b>List of Courses</b>	<b>Credit</b>	<b>No. of Hours</b>
Part III	Core Theory, Practical & Elective Courses	18	28
Part IV	Professional Competency Skill	2	2
Part V	Extension Activity	1	-
		<b>21</b>	<b>30</b>

### Consolidated Semester wise and Component wise Credit distribution

Parts	Sem I	Sem II	Sem III	Sem IV	Sem V	Sem VI	Total Credits
<b>Part I</b>	3	3	3	3	-	-	12
<b>Part II</b>	3	3	3	3	-	-	12
<b>Part III</b>	13	13	13	13	22	18	92
<b>Part IV</b>	4	4	3	6	4	2	23
<b>Part V</b>	-	-	-	-	-	1	1
<b>Total</b>	23	23	22	25	26	21	<b>140</b>

**\*Part I, II, and Part III components will be separately taken into account for CGPA calculation and classification for the under graduate programme and the other components Part IV, V have to be completed during the duration of the programme as per the norms, to be eligible for obtaining the UG degree.**

## CREDIT DISTRIBUTION FOR U.G. PROGRAMME

Part	Course Details	No. of Courses	Credit per course	Total Credits
<b>Part I</b>	Tamil	4	3	12
<b>Part II</b>	English	4	3	12
<b>Part III</b>	Core Courses	15	4/5	68
	Elective Courses: Generic / Discipline Specific (3 or 2+1 Credits)	8	3	24
<b>Part I, II and III Credits</b>				<b>116</b>
<b>Part IV</b>	Skill Enhancement Courses / NME / Language Courses	7	1/2	15
	Professional Competency Skill Course	1	2	2
	Environmental Science (EVS)	1	2	2
	Value Education	1	2	2
	Internship	1	2	2
<b>Part IV Credits</b>				<b>23</b>
<b>Part V</b>	Extension Activity (NSS / NCC / Physical Education)	1	1	1
<b>Total Credits for the UG Programme</b>				<b>140</b>

<b>Methods of Evaluation</b>		
<b>Internal Evaluation</b>	Continuous Internal Assessment Test	25 Marks
	Assignments	
	Seminars	
	Attendance and Class Participation	
<b>External Evaluation</b>	End Semester Examination	75 Marks
	Total	100 Marks
<b>Methods of Assessment</b>		
<b>Recall (K1)</b>	Simple definitions, MCQ, Recall steps, Concept definitions	
<b>Understand/Comprehend (K2)</b>	MCQ, True/False, Short essays, Concept explanations, Short summary or overview	
<b>Application (K3)</b>	Suggest idea/concept with examples, Suggest formulae, Solve problems, Observe, Explain	
<b>Analyze(K4)</b>	Problem-solving questions, Finish a procedure in many steps, Differentiate between various ideas, Map knowledge	
<b>Evaluate(K5)</b>	Longer essay/Evaluation essay, Critique or justify with pros and cons	
<b>Create(K6)</b>	Check knowledge in specific or off beat situations, Discussion, Debating or Presentations	

<p><b>Programme Outcomes:</b></p>	<p><b>PO1: Disciplinary knowledge:</b> Capable of demonstrating comprehensive knowledge and understanding of one or more disciplines that form a part of an undergraduate Programme of study</p> <p><b>PO2: Communication Skills:</b> Ability to express thoughts and ideas effectively in writing and orally; Communicate with others using appropriate media; confidently share one’s views and express herself/himself; demonstrate the ability to listen carefully, read and write analytically, and present complex information in a clear and concise manner to different groups.</p> <p><b>PO3: Critical thinking:</b> Capability to apply analytic thought to a body of knowledge; analyse and evaluate evidence, arguments, claims, beliefs on the basis of empirical evidence; identify relevant assumptions or implications; formulate coherent arguments; critically evaluate practices, policies and theories by following scientific approach to knowledge development.</p> <p><b>PO4: Problem solving: Capacity</b> to extrapolate from what one has learned and apply their competencies to solve different kinds of non-familiar problems, rather than replicate curriculum content knowledge; and apply one’s learning to real life situations.</p> <p><b>PO5: Analytical reasoning:</b> Ability to evaluate the reliability and relevance of evidence; identify logical flaws and holes in the arguments of others; analyze and synthesize data from a variety of sources; draw valid conclusions and support them with evidence and examples, and addressing opposing viewpoints.</p> <p><b>PO6: Research-related skills:</b> A sense of inquiry and capability for asking relevant/appropriate questions, problem arising, synthesising and articulating; Ability to recognise cause-and-effect relationships, define problems, formulate hypotheses, test hypotheses, analyse, interpret and draw conclusions from data, establish hypotheses, predict cause-and-effect relationships; ability to plan, execute and report the results of an experiment or investigation</p> <p><b>PO7: Cooperation/Team work:</b> Ability to work effectively and respectfully with diverse teams; facilitate cooperative or coordinated effort on the part of a group, and act together as a group or a team in the interests of a common cause and work efficiently as a member of a team</p> <p><b>PO8: Scientific reasoning:</b> Ability to analyse, interpret and draw conclusions from quantitative/qualitative data; and critically evaluate ideas, evidence and experiences from an open-minded and reasoned perspective.</p> <p><b>PO9: Reflective thinking:</b> Critical sensibility to lived experiences, with self awareness and reflexivity of both self and society.</p> <p><b>PO10 Information/digital literacy:</b> Capability to use ICT in a variety of learning situations, demonstrate ability to access, evaluate, and use a variety of relevant information sources; and use appropriate software for analysis of data.</p> <p><b>PO 11 Self-directed learning:</b> Ability to work independently, identify appropriate resources required for a project, and manage a project through to completion.</p> <p><b>PO 12 Multicultural competence:</b> Possess knowledge of the values and beliefs of multiple cultures and a global perspective; and capability to effectively engage in a multicultural society and interact respectfully with diverse groups.</p>
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	<p><b>PO 13: Moral and ethical awareness/reasoning:</b> Ability to embrace moral/ethical values in conducting one’s life, formulate a position/argument about an ethical issue from multiple perspectives, and use ethical practices in all work. Capable of demonstrating the ability to identify ethical issues related to one’s work, avoid unethical behaviour such as fabrication, falsification or misrepresentation of data or committing plagiarism, not adhering to intellectual property rights; appreciating environmental and sustainability issues; and adopting objective, unbiased and truthful actions in all aspects of work.</p> <p><b>PO 14: Leadership readiness/qualities:</b> Capability for mapping out the tasks of a team or an organization, and setting direction, formulating an inspiring vision, building a team who can help achieve the vision, motivating and inspiring team members to engage with that vision, and using management skills to guide people to the right destination, in a smooth and efficient way.</p> <p><b>PO 15: Lifelong learning:</b> Ability to acquire knowledge and skills, including „learning how to learn“, that are necessary for participating in learning activities throughout life, through self-paced and self-directed learning aimed at personal development, meeting economic, social and cultural objectives, and adapting to changing trades and demands of work place through knowledge/skill development/reskilling.</p>
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<p><b>Programme Specific Outcomes:</b></p>	<p><b>PSO1 – Placement:</b> To prepare the students who will demonstrate respectful engagement with others’ ideas, behaviors, beliefs and apply diverse frames of reference to decisions and actions.</p> <p><b>PSO 2 - Entrepreneur:</b> To create effective entrepreneurs by enhancing their critical thinking, problem solving, decision making and leadership skill that will facilitate startups and high potential organizations</p> <p><b>PSO3 – Research and Development:</b> Design and implement HR systems and practices grounded in research that comply with employment laws, leading the organization towards growth and development.</p> <p><b>PSO4 – Contribution to Business World:</b> To produce employable, ethical and innovative professionals to sustain in the dynamic business world.</p> <p><b>PSO 5 – Contribution to the Society:</b> To contribute to the development of the society by collaborating with stakeholders for mutual benefit</p>
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Semester - I	<b>CORE- I</b> <b>FINANCIAL ACCOUNTING-I</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
23UCOAC13		<b>5</b>			<b>5</b>

### Learning Objectives:

<b>LO1:</b>	To understand the basic accounting concepts and standards.
<b>LO2:</b>	To know the basis for calculating business profits.
<b>LO3:</b>	To familiarize with the accounting treatment of depreciation.
<b>LO4:</b>	To learn the methods of calculating profit for single entry system.
<b>LO5:</b>	To gain knowledge on the accounting treatment of insurance claims.

### Course Outcomes:

	After the successful completion of the course, the students will be able to:
<b>CO1:</b>	Remember the concept of rectification of errors and Bank reconciliation statements
<b>CO2:</b>	Apply the knowledge in preparing detailed accounts of sole trading concerns
<b>CO3:</b>	Analyse the various methods of providing depreciation
<b>CO4:</b>	Evaluate the methods of calculation of profit
<b>CO5:</b>	Determine the royalty accounting treatment and claims from insurance companies in case of loss of stock.

#### Unit I : Fundamentals of Financial Accounting

Financial Accounting – Meaning, Definition, Objectives, Basic Accounting Concepts and Conventions - Journal, Ledger Accounts– Subsidiary Books — Trial Balance - Classification of Errors – Rectification of Errors – Preparation of Suspense Account – Need and Preparation - Bank Reconciliation Statement.

#### Unit II: Final Accounts

Final Accounts of Sole Trading Concern- Capital and Revenue Expenditure and Receipts – Preparation of Trading, Profit and Loss Account and Balance Sheet with Adjustments.

#### Unit III: Depreciation and Bills of Exchange

Depreciation - Meaning – Objectives – Accounting Treatments - Types - Straight Line Method – Diminishing Balance method – Conversion method.

Annuity Method – Depreciation Fund Method – Insurance Policy Method – Revaluation Method – Depletion Method – Sum of Digits Method – Machine Hour Rate Method .

**Bills of Exchange** – Definition – Specimens – Discounting of Bills – Endorsement of Bill – Collection – Noting – Renewal – Retirement of Incomplete Records -Meaning and Features - Limitations - Difference between Incomplete Records and Double Entry System -

#### Unit IV: Accounting from Incomplete Records

Methods of Calculation of Profit - Statement of Affairs Method – Preparation of final statements by Conversion method. Bill under rebate – Insolvency of Acceptor – Accommodation.

Average Due Date and Account Current.

#### Unit V: Royalty and Insurance of Claims

Meaning – Minimum Rent – Short Working – Recoupment of Short Working – Lessor and Lessee – Sublease – Accounting Treatment

### Recent Trends in Financial Accounting

Faculty member will impart the knowledge on recent trends in Financial Accounting to the students and these components will not cover in the examination.

#### Text Books:

1. S. P. Jain and K. L. Narang 2023 Financial Accounting- I, Kalyani Publishers, New Delhi.
2. S.N. Maheshwari, 2023 Financial Accounting, Vikas Publications, Noida.
3. Shukla Grewal and Gupta, 2023 “Advanced Accounts”, volume 1, S.Chand and Sons, New Delhi.
4. Radhaswamy and R.L. Gupta: 2023 Advanced Accounting, Sultan Chand, New Delhi.
5. R.L. Gupta and V.K. Gupta, 2023 “Financial Accounting”, Sultan Chand, New Delhi.

#### Supplementary Readings:

1. Dr. Arulanandan and Raman: 2022 Advanced Accountancy, Himalaya Publications, Mumbai.
2. Tulsian , 2022 Advanced Accounting, Tata McGraw Hills, Noida.
3. Charumathi and Vinayagam, 2023 Financial Accounting, S.Chand and Sons, New Delhi.
4. Goyal and Tiwari, 2023 Financial Accounting, Taxmann Publications, New Delhi.
5. Robert N Anthony, David Hawkins, Kenneth A. 2023 Merchant, Accounting: Text and Cases. McGraw-Hill Education, Noida.

**NOTE: Latest Edition of Textbooks May be Used**

#### Web Reference:

1. <https://www.slideshare.net/mcsharma1/accounting-for-depreciation-1>
2. <https://www.slideshare.net/ramusakha/basics-of-financial-accounting>
3. <https://www.accountingtools.com/articles/what-is-a-single-entry-system.html>

**NOTE: Latest Edition of Textbooks May be Used**

#### Outcome Mapping

	Programme Outcomes												Programme Specific Outcomes					
CO	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6
CO 1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2
CO 2	3	3	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	1
CO 3	3	3	3	3	3	3	3	3	3	3	1	3	3	3	3	3	3	2
CO 4	3	3	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	2
CO 5	3	3	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	2

\*3– Strong, 2- Medium, 1- Low

Semester - I	<b>CORE - II</b> <b>PRINCIPLES OF MANAGEMENT</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
23UCOAC14		<b>5</b>			<b>5</b>

### Learning Objectives:

<b>LO1:</b>	To understand the basic management concepts and functions
<b>LO2:</b>	To know the various techniques of planning and decision making
<b>LO3:</b>	To familiarize with the concepts of organisation structure
<b>LO4:</b>	To gain knowledge about the various components of staffing
<b>LO5:</b>	To enable the students in understanding the control techniques of management

### Course Outcomes:

	After the successful completion of the course, the students will be able to:
<b>CO1:</b>	Demonstrate the importance of principles of management.
<b>CO2:</b>	Paraphrase the importance of planning and decision making in an organization.
<b>CO3:</b>	Comprehend the concept of various authorizes and responsibilities of an organization.
<b>CO4:</b>	Enumerate the various methods of Performance appraisal
<b>CO5:</b>	Demonstrate the notion of directing, co-coordination and control in the management.

#### Unit I: Introduction to Management

Meaning- Definitions – Nature and Scope - Levels of Management – Importance - Management Vs. Administration – Management: Science or Art –Evolution of Management Thoughts – F. W. Taylor, Henry Fayol, Peter F. Drucker, Elton Mayo - Functions of Management - Trends and Challenges of Management - Duties & Responsibilities.

#### Unit II: Planning

Planning – Meaning – Definitions – Nature – Scope and Functions – Importance and Elements of Planning – Types – Planning Process - Tools and Techniques of Planning – Management by Objective (MBO). Decision Making: Meaning – Characteristics – Types - Steps in Decision Making – Forecasting.

#### Unit III: Organizing

Meaning - Definitions - Nature and Scope – Characteristics – Importance – Types - Formal and Informal Organization – Organization Chart – Organization Structure: Meaning and Types - Departmentalization– Authority and Responsibility – Centralization and Decentralization – Span of Management

#### Unit IV: Staffing

Introduction - Concept of Staffing- Staffing Process – Recruitment – Sources of Recruitment – Modern Recruitment Methods - Selection Procedure – Test- Interview– Training: Need - Types– Promotion –Management Games – Performance Appraisal - Meaning and Methods – 360 Performance Appraisal – Work from Home - Managing Work from Home [WFH].

#### Unit V: Directing

Motivation –Meaning - Theories – Communication – Types - Barriers to Communications – Measures to Overcome the Barriers. Leadership – Nature - Types and Theories of Leadership – Styles of Leadership - Qualities of a Good Leader – Successful Women Leaders. Supervision.

### Co-ordination and Control

Co-ordination – Meaning - Techniques of Co-ordination.

Control - Characteristics - Importance – Stages in the Control Process - Requisites of Effective Control and Controlling Techniques – Management by Exception [MBE].

### Recent Trends in Principles of Management

Faculty member will impart the knowledge on recent trends in Principles of Management to the students and these components will not cover in the examination.

#### Text Books:

1. Gupta.C.B, 2022 Principles of Management-L.M. Prasad, S.Chand & Sons Co. Ltd, New Delhi.
2. DinkarPagare,2023Principles of Management, Sultan Chand & Sons Publications, New Delhi.
3. P.C.Tripathi& P.N Reddy, 2022 Principles of Management. Tata McGraw, Hill, Noida.
4. L.M. Prasad, Principles of Management, 2022 S.Chand &Sons Co. Ltd, New Delhi.
5. R.K. Sharma, Shashi K. Gupta, Rahul Sharma, 2023 Business Management, Kalyani Publications, New Delhi.

#### Supplementary Readings:

1. K Sundar, 2022 Principles of Management, Vijay Nichole Imprints Limited, Chennai
2. Harold Koontz, Heinz Weirich, 2023 Essentials of Management, McGraw Hill, Sultan Chand and Sons, New Delhi.
3. Griffin, 2022 Management principles and applications, Cengage learning, India.
4. H.Mintzberg 2023 The Nature of Managerial Work, Harper & Row, New York.
5. Eccles, R. G. & Nohria, N. Beyond the Hype 2023 Rediscovering the Essence of Management. Boston The Harvard Business School Press, India.

#### Web Reference:

1. <https://www.slideshare.net/mcsharma1/accounting-for-depreciation-1>
2. <https://www.slideshare.net/ramusakha/basics-of-financial-accounting>

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#### Outcome Mapping

	Programme Outcomes												Programme Specific Outcomes					
CO	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6
CO 1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
CO 2	3	3	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3
CO 3	3	3	3	3	3	3	3	3	3	3	1	3	3	3	3	3	3	3
CO 4	3	3	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3
CO 5	2	2	2	2	2	2	3	3	2	2	2	3	3	2	2	2	2	2

\*3– Strong, 2- Medium, 1- Low

**FIRST YEAR – SEMESTER – I**

**DEPARTMENTAL ELECTIVE- I: PROGRAMMING IN C AND LAB**

Subject Code	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
23UCOA E15-1	4		2		3	4	25	75	100
<b>Learning Objectives</b>									
<b>LO1</b>	Describe the core syntax and semantics of C programming language.								
<b>LO2</b>	Discover the need for working with the strings and functions.								
<b>LO3</b>	Illustrate the process of structuring the data using matrix, struct .								
<b>Prerequisites: Should have studied Commerce in XII Std</b>									
Unit	Contents								No. of Hours
I	Introduction to C Language:C Language Introduction-Features of C Language-Benefits of C over other languages-Compilation of C Program-First Program in CPre-processor in CPre-processor directives								
II	Variables, Data Types & Operators:Variables and Keywords in C-Scope rules in C-Data Types in C-Operators & Its Types-Typecasting in C								
III	Control Flow Statements:Decision Making Statements-Switch Statement in C-C Loops & Control Structure Practice problems-Continue Statement , Break Statement Array & String Handling in C:Arrays in C-Strings in C								
IV	Multidimensional Arrays in C-String functions in C- Practice problems Functions in C:Function Prototype-Parameter Passing Techniques in C-Storage Classes in C-Recursion Concept -Functions in CPractice problems								
V	Pointers, Structures, and Unions:Pointers in C-Structures- Union - Enumeration (or enum) in C- Pointer vs Array in C – C application programs (Sorting, Matrix manipulations, student’s mark list preparation)								

	<b>Total</b>	
<b>Course Outcomes</b>		
<b>CO1</b>	Apply the concept of Control Structures to solve any given problem.	
<b>CO2</b>	Apply the concept of single and multi-dimensional arrays to solve problems related to searching, sorting and matrix operations.	
<b>CO3</b>	Apply the concept of Strings for writing programs related to character array.	
<b>CO4</b>	Write programs using concept of user defined and recursive functions.	
<b>CO5</b>	Apply concept of structures to write programs.	
<b>Textbooks</b>		
1	E. Balaguruswamy, "Programming in ANSI C", 8th Edition, 2019, McGraw Hill Education, ISBN:978-93-5316-513-0.	
2	Pradip Dey, Manas Ghosh, "Programming in C", 2nd Edition, 2018, Oxford University Press, ISBN: 978-01-9949-147-6.	
3	Kernighan B.W and Dennis M. Ritchie, "The C Programming Language", 2nd Edition, 2015, Pearson Education India, ISBN: 978-93-3254-944-9.	
<b>Reference Books</b>		
1	Yashavant P. Kanetkar, "Let Us C", 16th Edition, 2019, BPB Publications, ISBN: 978-93-8728-449-4.	
2	Jacqueline A Jones and Keith Harrow, "Problem Solving with C", Pearson Education. ISBN: 978-93-325-3800-9.	
3	Dr. Guruprasad Nagraj, "C Programming for Problem Solving", Himalaya Publishing House. ISBN-978-93-5299-361-1.	
<b>NOTE: Latest Edition of Textbooks May be Used</b>		

Web Resources	
1	<a href="http://elearning.vtu.ac.in/econtent/courses/video/BS/14CPL16.html">http://elearning.vtu.ac.in/econtent/courses/video/BS/14CPL16.html</a>
2	<a href="https://nptel.ac.in/courses/106/105/106105171/">https://nptel.ac.in/courses/106/105/106105171/</a>

### FIRST YEAR – SEMESTER – I

C Programming Lab
<p><b>Learning Objectives:</b> (for teachers: what they have to do in the class/lab/field)</p> <ul style="list-style-type: none"> <li>• Understand problem statements and identify appropriate solutions.</li> <li>• Demonstrate the use of IDE and C Compiler.</li> <li>• Develop programs using C Programming Language.</li> </ul>
<p><b>Course Outcomes:</b> (for students: To know what they are going to learn)</p> <p><b>CO1:</b> Apply the concept of Control Structures to solve any given problem.</p> <p><b>CO2:</b> Apply the concept of single and multi-dimensional arrays to solve problems related to searching, sorting and matrix operations.</p> <p><b>CO3:</b> Apply the concept of Strings for writing programs related to character array.</p> <p><b>CO4:</b> Write programs using concept of user defined and recursive functions.</p> <p><b>CO5:</b> Apply concept of structures to write programs.</p>

List of Programs
<ol style="list-style-type: none"> <li>1. Write a C program to find roots of a Quadratic equation.</li> <li>2. Write a C program to find the total no. of digits and the sum of individual digits of a positive integer.</li> <li>3. Write a C program to generate the Fibonacci sequence of first N numbers.</li> <li>4. Write a C program to sum the series <math>S=1 - x + (x^2/2!) - (x^3/3!) + \dots - (x^n/n!)</math></li> <li>5. Write a C program to arrange the elements of an integer array using Bubble Sort algorithm.</li> <li>6. Write a C program to input two matrices and perform matrix multiplication on them</li> <li>7. Write a C program to check whether the given string is palindrome or not without using Library functions.</li> <li>8. Write a C program to count the number of lines, words and characters in a given text.</li> <li>9. Write a C program to generate Prime numbers in a given range using user defined function.</li> <li>10. Write a C program to find factorial of a given number using recursive function.</li> <li>11. Write a C program to maintain a record of n student details using an array of structures with four fields - Roll number, Name, Marks and Grade. Calculate the Grade according to the following conditions.</li> </ol> <p style="margin-left: 40px;"> <b>Marks Grade</b>  <math>\geq 80</math> A  <math>\geq 60</math> B  <math>\geq 50</math> C  <math>\geq 40</math> D  <math>&lt; 40</math> E </p> <p style="margin-left: 40px;">Print the details of the student, given the student Roll number as input.</p>



Extended Professional Component	Questions related to the above topics, from various competitive examinations UPSC / TRB / NET / UGC –CSIR / GATE / TNPSC / others to be solved (To be discussed during the Tutorial hour)
Skills acquired from the course	Knowledge, Problem Solving, Analytical ability, Professional Competency, Professional Communication and Transferrable Skill
<p><b>Text Books:</b>  E. Balaguruswamy, “Programming in ANSI C”, 8th Edition, 2019, McGraw Hill Education, ISBN:978-93-5316-513-0.</p> <p><b>Reference Books:</b></p> <ol style="list-style-type: none"> <li>1. Pradip Dey, Manas Ghosh, “Programming in C”, 2nd Edition, 2018, Oxford University Press, ISBN: 978-01-9949-147-6.</li> <li>2. Kernighan B.W and Dennis M. Ritchie, “The C Programming Language”, 2nd Edition, 2015, Pearson Education India, ISBN: 978-93-3254-944-9.</li> <li>3. Yashavant P. Kanetkar, “Let Us C”, 16th Edition, 2019, BPB Publications, ISBN: 978- 93-8728-449-4.</li> <li>4. Jacqueline A Jones and Keith Harrow, “Problem Solving with C”, Pearson Education. ISBN: 978-93-325-3800-9.</li> <li>5. Dr. Guruprasad Nagraj, “C Programming for Problem Solving”, Himalaya Publishing House. ISBN-978-93-5299-361-1.</li> </ol> <p><b>Weblinks and Video Lectures (e-Resources):</b></p> <ol style="list-style-type: none"> <li>1. <a href="http://elearning.vtu.ac.in/econtent/courses/video/BS/14CPL16.html">http://elearning.vtu.ac.in/econtent/courses/video/BS/14CPL16.html</a></li> <li>2. <a href="https://nptel.ac.in/courses/106/105/106105171/">https://nptel.ac.in/courses/106/105/106105171/</a></li> </ol>	

**FIRST YEAR – SEMESTER - I**

**DEPARTMENTAL ELECTIVE - I: PYTHON PROGRAMMING AND LAB**

Subject Code	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
23UC0AE 15-2	4		2		3	4	25	75	100
<b>Learning Objectives</b>									
LO1	Describe the core syntax and semantics of Python programming language.								
LO2	Discover the need for working with the strings and functions.								
LO3	Illustrate the process of structuring the data using lists, dictionaries, tuples and sets.								
LO4	Understand the usage of packages and Dictionaries								
<b>Prerequisites: Should have studied Commerce in XII Std</b>									
Unit	Contents								No. of Hours
I	Introduction: Computer algorithms-Computer Hardware-Computer Software-Python programming language - Literals - Variables and Identifiers - Operators - Expressions and Data types, Input / output								
II	Control Structures: Boolean Expressions - Selection Control - If Statement- Indentation in Python- Multi-Way Selection -- Iterative Control- While Statement- Infinite loops- Definite vs. Indefinite Loops- Boolean Flag. String, List and Dictionary, Manipulations Building blocks of python programs, Understanding and using ranges.								
III	Functions: Program Routines- Defining Functions- More on Functions: Calling Value-Returning Functions- Calling Non-Value-Returning Functions- Parameter Passing - Keyword Arguments in Python - Default Arguments in Python-Variable Scope. Recursion: Recursive Functions								
IV	Objects and their use: Software Objects - Turtle Graphics – Turtle attributes-Modular Design: Modules - Top-Down Design - Python Modules -								
V	Dictionaries and Sets: Dictionary type in Python - Set Data type. Text Files: Opening, reading and writing text files – Exception Handling								
<b>Total</b>									
<b>Course Outcomes</b>									
CO1	Develop and execute simple Python programs								
CO2	Write simple Python programs using conditionals and looping for solving problems								

<b>CO3</b>	Decompose a Python program into functions
<b>CO4</b>	Represent compound data using Python lists, tuples, dictionaries etc.
<b>Textbooks</b>	
1	Charles Dierbach, “Introduction to Computer Science using Python - A computational Problem-solving Focus”, Wiley India Edition, 2015.
2	Wesley J. Chun, “Core Python Applications Programming”, 3rd Edition , Pearson Education, 2016
3	Mark Lutz, “Learning Python Powerful Object Oriented Programming”, O’reilly Media 2018, 5th Edition.
<b>Reference Books</b>	
1	Timothy A. Budd, “Exploring Python”, Tata MCGraw Hill Education Private Limited 2011, 1 st Edition.
2	John Zelle, “Python Programming: An Introduction to Computer Science”, Second edition, Course Technology Cengage Learning Publications, 2013, ISBN 978-1590282410
3	Michel Dawson, “Python Programming for Absolute Beginners” , Third Edition, Course Technology Cengage Learning Publications, 2013, ISBN 978-1435455009
<b>NOTE: Latest Edition of Textbooks May be Used</b>	
<b>Web Resources</b>	
1	<a href="https://onlinecourses.swayam2.ac.in/cec22_cs20/preview">https://onlinecourses.swayam2.ac.in/cec22_cs20/preview</a>

<b>Python Programming Lab</b>	
<p><b>Learning Objectives:</b> (for teachers: what they have to do in the class/lab/field)</p> <ul style="list-style-type: none"> <li>• Acquire programming skills in core Python.</li> <li>• Acquire Object-oriented programming skills in Python.</li> <li>• Develop the skill of designing graphical-user interfaces (GUI) in Python.</li> <li>• Develop the ability to write database applications in Python.</li> <li>• Acquire Python programming skills to move into specific branches</li> </ul>	
<p><b>Course Outcomes:</b> (for students: To know what they are going to learn)</p> <p><b>CO1:</b> To understand the problem solving approaches</p> <p><b>CO2:</b> To learn the basic programming constructs in Python</p> <p><b>CO3:</b> To practice various computing strategies for Python-based solutions to real world problems</p> <p><b>CO4:</b> To use Python data structures - lists, tuples, dictionaries.</p>	

<b>List of Programs</b>	
<ol style="list-style-type: none"> <li>1. Program to convert the given temperature from Fahrenheit to Celsius and vice versa depending upon user's choice.</li> <li>2. Write a Python program to construct the following pattern, using a nested loop</li> </ol>	<pre> * ** *** **** ***** **** *** ** * </pre>
<ol style="list-style-type: none"> <li>3. Program to calculate total marks, percentage and grade of a student. Marks obtained in each of the five subjects are to be input by user. Assign grades according to the following criteria:</li> </ol> <p>Grade A: Percentage <math>\geq 80</math>      Grade B: Percentage <math>\geq 70</math> and <math>&lt; 80</math>  Grade C: Percentage <math>\geq 60</math> and <math>&lt; 70</math>      Grade D: Percentage <math>\geq 40</math> and <math>&lt; 60</math>  Grade E: Percentage <math>&lt; 40</math></p> <ol style="list-style-type: none"> <li>4. Program, to find the area of rectangle, square, circle and triangle by accepting suitable input parameters from user.</li> <li>5. Write a Python script that prints prime numbers less than 20.</li> <li>6. Program to find factorial of the given number using recursive function.</li> <li>7. Write a Python program to count the number of even and odd numbers from array of N numbers.</li> <li>8. Write a Python class to reverse a string word by word.</li> <li>9. Read a file content and copy only the contents at odd lines into a new file.</li> <li>10. Create a Turtle graphics window with specific size.</li> </ol>	

<p>Extended Professional Component</p>	<p>Questions related to the above topics, from various competitive examinations UPSC / TRB / NET / UGC –CSIR / GATE / TNPSC / others to be solved (To be discussed during the Tutorial hour)</p>
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Skills acquired from the course	Knowledge, Problem Solving, Analytical ability, Professional Competency, Professional Communication and Transferrable Skill
<p><b>Learning Resources:</b></p> <ul style="list-style-type: none"> <li>• <b>Recommended Texts</b> <ol style="list-style-type: none"> <li>1. Charles Dierbach, “Introduction to Computer Science using Python - A computational Problem-solving Focus”, Wiley India Edition, 2015.</li> <li>2. Wesley J. Chun, “Core Python Applications Programming”, 3rd Edition , Pearson Education, 2016</li> </ol> </li> <li>• <b>Reference Books</b> <ol style="list-style-type: none"> <li>1. Mark Lutz, “Learning Python Powerful Object Oriented Programming”, O’reilly Media 2018, 5th Edition.</li> <li>2. Timothy A. Budd, “Exploring Python”, Tata MCGraw Hill Education Private Limited 2011, 1 st Edition.</li> <li>3. John Zelle, “Python Programming: An Introduction to Computer Science”, Second edition, Course Technology Cengage Learning Publications, 2013, ISBN 978- 1590282410</li> <li>4. Michel Dawson, “Python Programming for Absolute Beginers” , Third Edition, Course Technology Cengage Learning Publications, 2013, ISBN 978-1435455009</li> </ol> </li> </ul>	

**FIRST YEAR – SEMESTER – I**  
**DEPARTMENTAL ELECTIVE - I - Computer Fundamentals**

Subject Code	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
23UCOAE15-3	4				3	4	25	75	100
<b>Learning Objectives</b>									
<b>LO1</b>	To Impart the Knowledge of Fundamentals of Computers.								
<b>LO2</b>	To discover the Knowledge of newly invented devices and Units								
<b>LO3</b>	To compute with the interconnected networks for the linkage of Worldwide Networks.								
<b>LO4</b>	To apply the software and understand the system software								
<b>LO5</b>	To given more information on the Internet								
<b>Prerequisite: Should have studied Commerce in XII Std</b>									
Unit	Contents								No. of Hours
I	Evolution of Computers - Generations, Types of computers, Computer system characteristics, Basic components of a Digital Computer - Control unit, ALU, Input/Output functions and memory, Memory addressing capability of a CPU, Word length of a computer, processing speed of a computer, Computer Classification.								12
II	Input/Output Units:- Keyboard, Mouse, Trackball, Joystick, Digitizing tablet, Scanners, Digital Camera, MICR, OCR, OMR, Bar-code Reader, Voice Recognition, Light pen, Touch Screen, Monitors and types of monitor -Digital, Analog, Size, Resolution, Refresh Rate, Dot Pitch, Video Standard - VGA, SVGA, XGA etc., Printers & types - Daisy wheel, Dot Matrix, Inkjet, Laser, Line Printer, Plotter, Sound Card and Speakers.								12
III	Memory - RAM, ROM, EPROM, PROM and other types of memory, Storage fundamentals - Primary Vs Secondary Data Storage, Various Storage Devices - Magnetic Tape, Magnetic Disks, Cartridge Tape, Hard Disk Drives, Floppy Disks (Winchester Disk), Optical Disks, CD, VCD, CDR, CD-RW, Zip Drive, flash drives Video Disk, Blue Ray Disc, SD/MMC Memory cards, Physical structure of floppy & hard disk, drive naming conventions in PC. DVD, DVD-RW, USB Pen drive.								12
IV	Software and its Need, Types of Software - System software, Application software, System Software - Operating System, Utility Program, Algorithms, Flow Charts - Symbols, Rules for making Flow chart, Programming languages, Assemblers, Compilers and Interpreter, Computer Applications in Business.								12

V	Introduction to Internet, connecting to the Internet Hardware, Software & ISPs, Search Engines, Web Portals, Online Shopping, Email – Types of email, Compose and send a message. Reply to a message, Working with emails.	12
<b>TOTAL</b>		<b>60</b>
<b>CO</b>	<b>Course Outcomes</b>	
<b>CO1</b>	Illustrate the different types of computers	
<b>CO2</b>	Extracting the nature of Input and Output Devices	
<b>CO3</b>	Differentiate the types of Memory	
<b>CO4</b>	Determine system software and Explain the Structure of Algorithms, Programs and Flowcharts	
<b>CO5</b>	Scholastic Representation of Web Portals, Search Engines	
<b>Textbooks</b>		
1	B. Ram, “Computer Fundamentals, Architecture and Organization”, New Age International Publishers	
2	S.K.Basandra, “Computers Today “, Galgotia Publications.	
3	P.K. Sinha, “Computer Fundamentals – P. K. Sinha – BPB Publication	
<b>Reference Books</b>		
1	T. C.Bartee, “Digital Computer Fundamentals”, Sixth Edition, 1991, TMH.	
2	Anita Goel, Computer Fundamentals, Pearson Publications,	
3	Ramesh Bangia, Computer Fundamentals and information technology, Firewall Media Publications	
<b>NOTE: Latest Edition of Textbooks May be Used</b>		
<b>Web Resources</b>		
1	<a href="https://books.google.co.in/books?id=ICjqr6V9S6UC&amp;printsec=frontcover#v=onepage&amp;q&amp;f=false">https://books.google.co.in/books?id=ICjqr6V9S6UC&amp;printsec=frontcover#v=onepage&amp;q&amp;f=false</a>	
2	<a href="https://www.google.co.in/books/edition/COMPUTER_FUNDAMENTALS_SEMESTER_1/sbf0wQEACAAJ?hl=en">https://www.google.co.in/books/edition/COMPUTER_FUNDAMENTALS_SEMESTER_1/sbf0wQEACAAJ?hl=en</a>	
3	<a href="https://www.google.co.in/books/edition/Computer_Fundamentals/zyOYs2EqZDgC?hl=en&amp;gbpv=1&amp;dq=computer%20fundamentals&amp;pg=PR6&amp;printsec=frontcover">https://www.google.co.in/books/edition/Computer_Fundamentals/zyOYs2EqZDgC?hl=en&amp;gbpv=1&amp;dq=computer%20fundamentals&amp;pg=PR6&amp;printsec=frontcover</a>	

Semester - I	SKILL ENHANCEMENT COURSE –1 ( NME-I ) DIGITAL BANKING	L	T	P	C
23UCOAN16		2			2

<b>Learning Objectives:</b>	
<b>LO1:</b>	To acquaint students with knowledge of Digital Banking Products.
<b>LO2:</b>	To enable the students to understand the knowledge of Digital Payment System
<b>LO3:</b>	To impart the students to understand the new concepts of Mobile and Internet Banking
<b>LO4:</b>	To enables the students to have depth knowledge in point of sale terminals
<b>LO5:</b>	To understand the ATM and cash deposit system
<b>Course Outcomes:</b>	
	After the successful completion of the course, the students will be able to:
<b>CO1:</b>	Explain the need for digital banking products and the usage of cards.
<b>CO2:</b>	Classify the usage of various payment systems.
<b>CO3:</b>	Discuss the profitability, risk management and frauds of mobile and internet banking.
<b>CO4:</b>	Analyse the approval processes of POS terminals.
<b>CO5:</b>	Explain the product features and services of ATM and Cash Deposit Machine.

#### **Unit I: Digital Banking Products**

Digital Banking –Meaning – Features - Digital Banking Products - Features - Benefits – Bank Cards –Features and Incentives of Bank cards - Types of Bank Cards - New Technologies - Europay, Master and Visa Card (EMV) - Tap and Go, Near FieldCommunication (NFC) etc. - Approval Processes for Bank Cards – Customer Education for Digital Banking Products - Digital Lending –Digital Lending Process- Non-Performing- Asset (NPA).

#### **Unit II: Payment System**

Overview of Domestic and Global Payment systems -RuPay and RuPay Secure - Immediate Payment Service (IMPS) – National Unified USSD Platform (NUUP) - National Automated Clearing House (NACH) - Aadhaar Enabled Payment System (AEPS) –Cheque Truncation System (CTS) –Real Time Gross Settlement Systems (RTGS)–National Electronic Fund Transfer(NEFT) - Innovative Banking & Payment Systems.

#### **Unit III: Mobile and Internet Banking**

Mobile & Internet Banking - Overview – Product Features and Diversity - Corporate and Individual Internet Banking Integration with e-Commerce Merchant sites, IMPS - Profitability - Risk Management and Frauds - Cyber Crime - Cyber Security - Blockchain Technology - Types - Crypto currency and Bitcoins

#### **Unit IV: Point of Sale Terminals**

Point of Sale (POS) Terminals - Overview - Features - Approval processesfor POS Terminals - Key Components of POS - Hardware - Software - User Interface Design - Cloudbased Point of Sale – Cloud Computing - Benefits of POS in Retail Business.

#### **Unit V: Automated Teller Machine and Cash Deposit Systems**

Automated Teller Machine(ATM) - Cash Deposit Machine(CDM)& Cash Recyclers - Overview - Features - ATM Instant Money Transfer Systems - National Financial Switch (NFS) -Various Value Added Services - Proprietary, Brown Label and White Label ATMs - ATM & CDM Network Planning - Onsite / Offsite - ATM security, Surveillance and Fraud Prevention.



### **Recent Trends in Digital Banking**

Faculty member will impart the knowledge on recent Developments in Digital Banking to the students and these components will not cover in the examination.

#### **Text Books:**

1. IIBF, 2019. Digital Banking. Taxmann Publications, New Delhi
2. Gordon E. & Natarajan S. 2017 Banking Theory, Law and Practice. 24th Revised Edition. Himalaya Publishing House, New Delhi
3. Ravindra Kumar and Manish Deshpande. 2016 E-Banking. Pacific Books International, 2016.
4. Uppal R.K. 2017 E-Banking: The Indian Experience. Bharti Publications, 2017.

#### **Supplementary Readings:**

1. Arunajatesan S 2017 Technology in Banking Margham Publications Chennai..
2. Digital Banking 2016 Indian Institute of Banking and Finance, Pvt Limited New Delhi.
3. Indian Institute of Banking and Finance, 2016 ,General Bank Management, McMillan, Mumbai
4. SubbaRao S and Khanna. P.L 2014 Principles and Practice of Bank Management, Himalya Publishing House, Mumbai.

#### **Web Reference:**

- 1 [https://ebooks.lpude.in/commerce/bcom/term\\_4/DCOM208\\_BANKING\\_THEORY\\_AND\\_PRACTICE.pdf](https://ebooks.lpude.in/commerce/bcom/term_4/DCOM208_BANKING_THEORY_AND_PRACTICE.pdf)
- 2 <http://www.himpub.com/documents/Chapter1859.pdf>.

<b>Semester-I</b>	<b>FOUNDATION COURSE FUNDAMENTALS OF BUSINESS STUDIES</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>23UCOMF17</b>		<b>2</b>			<b>2</b>

A bridge course for the students of commerce faculty is conducted every year to get the students the knowledge of commerce faculty. The main objective of the course is to bridge the gap between subjects studied at School level and subjects they would be studying in commerce faculty. A Bridge course aims to cover the gap between the understanding level of the higher secondary school courses and higher educational courses. Bridge course is preparative course for college level course with an academic curriculum that is offered to enhance the knowledge of the students by means of preparing for the intellectual challenges of commerce subject and to know basic information about core subject.

Bridge courses are the tool to help students to success in their graduate level studies. It is also a pre requisite and foundational course to know the basic information about commerce subjects.

### **FUNDAMENTALS OF BUSINESS STUDIES**

#### **Objective**

The bridge course aims to act as a buffer for the new entrants with an objective to provide adequate time for the transition to hard core of degree courses. This gives them a breather, to prepare themselves before the onset of courses for first year degree programme.

<b>Course Outcomes:</b>	
	After the successful completion of the course, the students will be able to:
<b>CO1:</b>	To make the students familiar with the basic concepts of commerce, and Management Fields.
<b>CO2:</b>	To encourage and motivate the Students for the commerce Education.
<b>CO3:</b>	To make the students aware towards the various branches of commerce for Example, Accounts, Banking and Auditing.

#### **Unit I Commerce-Introduction**

Definition of Commerce - Importance's of Commerce -Meaning of barter system --business-industry-trade-hindrances of trade-branches of Commerce.

#### **Unit II Accounting-Introduction**

Book-Keeping-Meaning -Definition –Objectives- Accounting-Meaning –Definition-Objectives-Importance-Functions-Advantages- Limitations-Methods of Accounting-Single Entry Double Entry-Steps involved in double entry system-Advantages of double entry system-Meaning of Debit and Credit-Types of Accounts and its rules-Personal Accounts-Real Accounts-Nominal Accounts.

#### **Unit III Marketing and Advertising**

Meaning of Marketing-Definition-Functions of Marketing- Meaning of Consumer – Standardization and Grading -Pricing –Kinds of Pricing -AGMARK-ISI-Advertising: Meaning, Characteristics, Advertising Objectives,Advertising Functions Advantages of advertising, Kinds of Advertising,Advertising Media, Kinds of media

#### **Unit IV Auditing & Entrepreneurial Development**

Introduction of Auditing -Origin and Evolution –Definition - Features of Auditing -Objectives of Auditing Advantages of Audit -Limitations of Auditing -Distinction between Auditing & Investigation -Distinction between Accounting & Auditing -Basic Principles of Audit - Classification of Audit- Entrepreneurial Development-Characteristics of an entrepreneur-Functionsof an entrepreneur-Types of an entrepreneur -Problems of Women entrepreneur-Concept of Women Entrepreneurs

#### **Unit V: Income Tax Law and Practice**

Tax history-Types –Various Terms in Tax-Exempted Income U/S 10-Canons of Taxation-  
Income Tax Authority and Administration-Slab Rate -Filing of Returns-Residential Status.

**Text Books:**

1. L.M. Prasad, Principles of Management, 2022 S.Chand & Sons Co. Ltd, New Delhi.
2. S. P. Jain and K. L. Narang 2023 Financial Accounting- I, Kalyani Publishers, New Delhi.
3. Dr. N. Rajan Nair, 2023 Marketing, Sultan Chand & Sons. New Delhi
4. Jayashree Suresh, (Reprint 2017) Entrepreneurial Development, Margham Publications. Chennai
5. Sundar K. and Paari, 2016 Auditing Vijay Nicole, Imprints Private Ltd, Chennai.
6. T. Srinivasan 2024 Income Tax & Practice –Vijay Nicole Imprints Private Limited, Chennai.

Semester - II	CORE- III : FINANCIAL ACCOUNTING -II	L	T	P	C
23UCOAC23		5			5

### Learning Objectives:

<b>LO1:</b>	The students are able to prepare different kinds of accounts such Higher purchase and Instalments System.
<b>LO2:</b>	To understand the allocation of expenses under departmental accounts
<b>LO3:</b>	To gain an understanding about partnership accounts relating to Admission and retirement
<b>LO4:</b>	Provides knowledge to the learners regarding Partnership Accounts relating to dissolution of firm
<b>LO5:</b>	To know the requirements of international accounting standards

### Course Outcomes:

	After the successful completion of the course, the students will be able to:
<b>CO1:</b>	To evaluate the Hire purchase accounts and Instalment systems
<b>CO2:</b>	To prepare Branch accounts and Departmental Accounts
<b>CO3:</b>	To understand the accounting treatment for admission and retirement in partnership
<b>CO4:</b>	To know Settlement of accounts at the time of dissolution of a firm.
<b>CO5:</b>	To elaborate the role of IFRS

#### Unit I: Hire Purchase and Instalment System

Hire Purchase System – Accounting Treatment – Calculation of Interest - Default and Repossession - Hire Purchase Trading Account Instalment System - Calculation of Profit

#### Unit II: Branch and Departmental Accounts

Branch – Dependent Branches: Accounting Aspects - Debtors system -Stock and Debtors system – Distinction between Wholesale Profit and Retail Profit – Independent Branches (Foreign Branches excluded) - Departmental Accounts: Basis of Allocation of Expenses – Inter- Departmental Transfer at Cost or Selling Price.

#### Unit III: Partnership Accounts - I

Partnership Accounts: –Admission of a Partner – Treatment of Goodwill - Calculation of Hidden Goodwill –Retirement of a Partner – Death of a Partner.

#### Unit IV: Partnership Accounts - II

Dissolution of Partnership - Methods – Settlement of Accounts Regarding Losses and Assets – Realization account – Treatment of Goodwill – Preparation of Balance Sheet - Insolvency of a Partner – One or more Partners insolvent – All Partners insolvent - Garner Vs Murray – Accounting Treatment - Piecemeal Distribution – Surplus Capital Method – Maximum Loss Method.

#### Unit V: Accounting Standards for financial reporting

Objectives and Uses of Financial Statements for Users-Role of Accounting Standards - Development of Accounting Standards in India- Requirements of International Accounting Standards - Role of Developing IFRS- IFRS Adoption or Convergence in India-

Implementation Plan in India- Ind AS- An Introduction - Difference between Ind AS and IFRS.

### Recent Trends in Financial Accounting

Faculty member will impart the knowledge on recent trends in Financial Accounting to the students and these components will not cover in the examination.

**Note: Question Paper shall cover 20% Theory and 80% Problems.**

#### Text Books:

1. S. P. Jain and K. L. Narang 2023 Financial Accounting- I, Kalyani Publishers, New Delhi.
2. S.N. Maheshwari, 2023 Financial Accounting, Vikas Publications, Noida.
3. Shukla Grewal and Gupta, 2023 “Advanced Accounts”, volume 1, S.Chand and Sons, New Delhi.
4. Radhaswamy and R.L. Gupta: 2023 Advanced Accounting, Sultan Chand, New Delhi.
5. R.L. Gupta and V.K. Gupta, 2023 “Financial Accounting”, Sultan Chand, New Delhi.

#### Supplementary Readings:

1. Dr. Arulanandan and Raman: 2022 Advanced Accountancy, Himalaya Publications, Mumbai.
2. Tulsian , 2022 Advanced Accounting, Tata McGraw Hills, Noida.
3. Charumathi and Vinayagam, 2023 Financial Accounting, S.Chand and Sons, New Delhi.
4. Goyal and Tiwari, 2023 Financial Accounting, Taxmann Publications, New Delhi.
5. Robert N Anthony, David Hawkins, Kenneth A. 2023 Merchant, Accounting: Text and Cases. McGraw-Hill Education, Noida.

**NOTE: Latest Edition of Textbooks May be Used**

#### Web Reference:

1. <https://www.slideshare.net/mcsharma1/accounting-for-depreciation-1>
2. <https://www.slideshare.net/ramusakha/basics-of-financial-accounting>
3. <https://www.accountingtools.com/articles/what-is-a-single-entry-system.html>

#### Outcome Mapping

CO	Programme Outcomes												Programme Specific Outcomes					
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6
CO1	3	3	3	3	2	3	3	3	3	2	2	1	2	3	2	2	2	1
CO2	3	3	3	3	2	3	3	3	3	2	2	1	2	3	2	2	2	1
CO3	3	3	3	3	2	3	3	3	3	2	1	1	2	3	2	1	1	1
CO4	3	3	3	3	2	3	3	3	3	2	2	2	2	3	2	2	2	2
CO5	2	2	2	2	3	2	2	2	2	3	1	1	2	2	3	1	1	1

\*3– Strong, 2- Medium, 1- Low

23UCOAC24	CORE-II: BUSINESS LAW	L	T	P	C
Semester - II		5			5

### Learning Objectives:

<b>LO1:</b>	To know the nature and objectives of Mercantile law
<b>LO2:</b>	To understand the essentials of valid contract
<b>LO3:</b>	To gain knowledge on performance contracts
<b>LO4:</b>	To define the concepts of Bailment and pledge
<b>LO5:</b>	To understand the essentials of contract of sale

### Course Outcomes:

	After the successful completion of the course, the students will be able to:
<b>CO1:</b>	Explain the Objectives and significance of Mercantile law
<b>CO2:</b>	Understand the clauses and exceptions of Indian Contract Act.
<b>CO3:</b>	Explain concepts on performance, breach and discharge of contract.
<b>CO4:</b>	Outline the contract of indemnity and guarantee
<b>CO5:</b>	Explain the various provisions of Sale of Goods Act 1930

#### Unit I: Introduction

An introduction – Definition – Objectives of Law - Law: Meaning and its Significance, Mercantile Law: Meaning, Definition, Nature, Objectives, Sources, Problems of Mercantile Law

#### Unit II: Elements of Contract

**Indian Contract Act 1872:** Definition of Contract, Essentials of Valid Contract, Classification of Contract, Offer and Acceptance – Consideration – Capacity of Contract – Free Consent - Legality of Object – Contingent Contracts – Void Contract

#### Unit III: Performance Contract

Meaning of Performance, Offer to Perform, Devolution of Joint liabilities & Rights, Time and Place of Performance, Reciprocal Promises, Assignment of Contracts - Remedies for Breach of contract - Termination and Discharge of Contract - Quasi Contract

#### Unit IV: Contract of Indemnity and Guarantee

Contract of Indemnity and Contract of Guarantee - Extent of Surety's Liability, Kinds of Guarantee, Rights of Surety, Discharge of Surety – Bailment and Pledge – Bailment – Concept – Essentials and Kind - Classification of Bailments, Duties and Rights of Bailor and Bailee – Law of Pledge – Meaning – Essentials of Valid Pledge, Pledge and Lien, Rights of Pawnee and Pawner.

#### Unit V: Sale of Goods Act 1930

Definition of Contract of Sale – Formation - Essentials of Contract of Sale - Conditions and Warranties - Transfer of Property – Contracts involving Sea Routes - Sale by Non-owners - Rights and duties of buyer - Rights of an Unpaid Seller

### Recent Amendments in Business Law

Faculty member will impart the knowledge on recent Amendments in Business Law to the students and these components will not cover in the examination.

### Text Books:

1. N.D. Kapoor , 2023 Business Laws Sultan Chand and Sons, New Delhi.
2. R.S.N. Pillai 2023 Business Law, S.Chand, New Delhi.
3. M C Kuchhal & Vivek Kuchhal, 2023 Business law, S Chand Publishing, New Delhi
4. M.V. Dhandapani,2023 Business Laws, Sultan Chand and Sons, New Delhi.
5. Shusma Aurora, 2023 Business Law, Taxmann, New Delhi.

### Supplementary Readings:

1. Preethi Agarwal, 2023 Business Law, CA foundation study material, Chennai.
2. Saravanavel, Sumathi, Anu, 2023 Business Law Himalaya Publications, Mumbai.
3. Kavya and Vidhyasagar, 2023 Business Law, Nithya Publication, New Delhi.
4. D.Geet, Business Law 2023 Nirali Prakashan Publication, Pune.
5. M.R. Sreenivasan , 2023 Business Laws, Margham Publications, Chennai.

**NOTE: Latest Edition of Textbooks May be Used**

### Web Reference:

1. [www.cramerz.com](http://www.cramerz.com)[www.digitalbusinesslawgroup.com](http://www.digitalbusinesslawgroup.com)
2. <http://swcu.libguides.com/buslaw>
3. <http://libguides.slu.edu/businesslaw>

### Outcome Mapping

CO	Programme Outcomes												Programme Specific Outcomes					
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6
CO1	3	3	3	3	3	2	3	3	3	3	2	2	1	2	3	2	2	2
CO2	2	3	3	3	3	2	3	3	3	3	2	2	1	2	3	2	2	2
CO3	2	3	3	3	3	2	3	3	3	3	2	1	1	2	3	2	1	2
CO4	2	3	3	3	3	2	3	3	3	3	2	2	2	2	3	2	2	2
CO5	2	2	2	2	2	3	2	2	2	2	3	1	1	2	2	3	2	2

\*3- Strong, 2- Medium, 1- Low

**FIRST YEAR – SEMESTER – II**

**DEPARTMENTAL ELECTIVE– II :**

**OFFICE AUTOMATION AND LAB (Evaluation Theory Only)**

Subject Code	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
<b>23UCOA E25-1</b>	<b>2</b>		<b>2</b>		<b>3</b>	<b>4</b>	<b>25</b>	<b>75</b>	<b>100</b>
<b>Learning Objectives</b>									
<b>LO1</b>	The major objective in introducing the Computer Skills course is to impart training for students in Microsoft Office which has different components like MS Word, MS Excel and Power point.								
<b>LO2</b>	The course is highly practice oriented rather than regular class room teaching.								
<b>LO3</b>	To acquire knowledge on editor, spread sheet and presentation software.								
<b>Prerequisites: Should have studied Commerce in XII Std</b>									



<b>Unit</b>	<b>Contents</b>	<b>No. of Hours</b>
I	Introductory concepts: Hardware and Software - Memory unit – CPU-Input Devices: Key board, Mouse and Scanner. Output devices: Monitor, Printer. Introduction to Operating systems - Introduction to Programming Languages.	
II	Word Processing: File menu operations - Editing text – tools, formatting, bullets and numbering - Spell Checker - Document formatting – Paragraph alignment, indentation, headers and footers, printing – Preview, options, merge.	
III	Spreadsheets: Excel – opening, entering text and data, formatting, navigating; Formulas – entering, handling and copying	
IV	Charts – creating, formatting and printing, analysis tables, preparation of financial statements, introduction to data analytics.	
V	Power point: Introduction to Power point - Features – Understanding slide typecasting & viewing slides – creating slide shows. Applying special object – including objects & pictures – Slide transition – Animation effects, audio inclusion, timers.	
	<b>Total</b>	
<b>Course Outcomes</b>		
<b>CO1</b>	Understand the basics of computer systems and its components.	
<b>CO2</b>	Understand and apply the basic concepts of a word processing package.	
<b>CO3</b>	Understand and apply the basic concepts of electronic spreadsheet software.	
<b>CO4</b>	Understand and apply the basic concepts of database management system.	
<b>CO5</b>	Understand and create a presentation using PowerPoint tool.	
<b>Textbooks</b>		
1	Peter Norton, “Introduction to Computers” –Tata McGraw-Hill.	
<b>Reference Books</b>		
1	Jennifer Ackerman Kettel, Guy Hat-Davis, Curt Simmons, “Microsoft 2003”, Tata McGraw- Hill.	
<b>NOTE: Latest Edition of Textbooks May be Used</b>		
<b>Web Resources</b>		
1	Web content from NDL / SWAYAM or opensource web resources	

<b>Office Automation Lab</b>	
<p><b>Learning Objectives:</b> (for teachers: what they have to do in the class/lab/field) Office tools course would enable the students in crafting professional word documents, excel spread sheets, power point presentations using the Microsoft suite of office tools. To familiarize the students in preparation of documents and presentations with office automation tools.</p>	
<p><b>Course Outcomes:</b> (for students: To know what they are going to learn) <b>CO1:</b> to perform documentation <b>CO2:</b> to perform accounting operations <b>CO3:</b> to perform presentation skills</p>	

<b>List of Programs</b>	
<p><b>Word</b></p> <p><b>Word Orientation :</b> The instructor needs to give an overview of Microsoft word &amp; Importance of MS Word as word Processor, Details of the four tasks and features that would be covered Using word – Accessing, overview of toolbars, saving files, Using help and resources, rulers, format painter.</p> <p><b>Task 1 : Using word</b> to create project certificate. Features to be covered:-Formatting Fonts in word, Drop Cap in word, Applying Text effects, Using Character Spacing, Borders and Colors, Inserting Header and Footer, Using Date and Time option in Word.</p> <p><b>Task 2 : Creating project abstract</b> Features to be covered:-Formatting Styles, Inserting table, Bullets and Numbering, Changing Text Direction, Cell alignment, Footnote, Hyperlink, Symbols, Spell Check , Track Changes.</p> <p><b>Task 3 : Creating a Newsletter :</b> Features to be covered:- Table of Content, Newspaper columns, Images from files and clipart, Drawing toolbar and Word Art, Formatting Images, Textboxes and Paragraphs</p>	
<p><b>Excel</b></p> <p><b>Excel Orientation :</b>The instructor needs to tell the importance of MS Excel as a Spreadsheet tool, give the details of the four tasks and features that would be covered Excel – Accessing, overview of toolbars, saving excel files, Using help and resources {Comdex Information Technology course tool kit Vikas }</p> <p><b>Task1: Creating a Scheduler</b> - Features to be covered: Gridlines, Format Cells, Summation, auto fill, Formatting Text</p> <p><b>Task 2 : Calculations</b> - Features to be covered:- Cell Referencing, Formulae in excel – average, standard deviation, Charts, Renaming and Inserting worksheets, Hyper linking, Count function, LOOKUP/VLOOKUP</p> <p><b>Task 3 : Performance Analysis</b> - Features to be covered:- Split cells, freeze panes, group and outline, Sorting, Boolean and logical operators, Conditional formatting</p>	
<p><b>MS Power Point</b></p> <p><b>Task1 :</b>Students will be working on basic power point utilities and tools which help them create basic power point presentation. Topic covered includes :- PPT Orientation, Slide Layouts, Inserting Text, Word Art, Formatting Text, Bullets and Numbering, Auto Shapes, Lines and Arrows</p> <p><b>Task 2 :</b>This session helps students in making their presentations interactive. Topics covered includes: Hyperlinks, Inserting –Images, Clip Art, Audio, Video, Objects, Tables and Charts</p> <p><b>Task 3 :</b>Concentrating on the in and out of Microsoft power point. Helps them learn best practices in designing and preparing power point presentation. Topics covered includes :- Master Layouts (slide, template, and notes), Types of views (basic, presentation, slide slotter, notes etc), Inserting – Background, textures, Design Templates, Hidden slides.Auto content</p>	

wizard, Slide Transition, Custom Animation, Auto Rehearsing

Extended Professional Component	Questions related to the above topics, from various competitive examinations UPSC / TRB / NET / UGC –CSIR / GATE / TNPSC / others to be solved (To be discussed during the Tutorial hour)
Skills acquired from the course	Knowledge, Problem Solving, Analytical ability, Professional Competency, Professional Communication and Transferrable Skill
1. Comdex Information Technology course tool kit Vikas Gupta, WILEY Dreamtech,2005 2. The Complete Computer upgrade and repair book,3rd edition Cheryl A Schmidt, WILEY Dreamtech Introduction to Information Technology, ITL Education Solutions limited, Pearson Education. 4. PC Hardware and A + Handbook – Kate J. Chas PHI (Microsoft)	

**FIRST YEAR – SEMESTER - II**

**DEPARTMENTAL ELECTIVE– II: PROGRAMMING IN C++ AND LAB**

Subject Code	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
<b>23UCOA E25-2</b>	<b>2</b>		<b>2</b>		<b>3</b>	<b>4</b>	<b>25</b>	<b>75</b>	<b>100</b>
<b>Learning Objectives</b>									
<b>LO1</b>	To engender an appreciation for the need and characteristics of Object-orientation.								
<b>LO2</b>	To impart knowledge of the C++ language grammar in order to design and implement programming solutions to simple problems by applying Object-oriented thinking.								
<b>Prerequisites: Should have studied Commerce in XII Std</b>									
<b>Unit</b>	<b>Contents</b>								<b>No. of Hours</b>
<b>I</b>	Object Oriented Programming Concepts: Complexity in software - The need for object-orientation – Abstraction – Encapsulation – Modularity – Hierarchy. Basic Elements of C++: Classes – Objects – Data members and member functions – private and public access specifiers - Static members - Constructors – Singleton class - Destructors								
<b>II</b>	Friend Functions and Friend Classes - Array of objects – Pointer to objects - this pointer – References – Dynamic memory allocation - Namespaces. Function Overloading: Overloading a function - Default arguments – Overloading Constructors. Operator Overloading: Overloading an operator as a member function – Overloading an operator as a friend function								
<b>III</b>	Overloading the operators [], (), -> and comma operators – Conversion Functions. Inheritance: Types of inheritance – protected access specifier – Virtual Base Class – Base class and derived class constructors. Runtime Polymorphism: Virtual Functions								
<b>IV</b>	Function overriding - Pure virtual function – Abstract base class. Templates: Function templates – Overloading a function template – Class templates.								
<b>V</b>	Exception Handling: Exceptions – try, catch, throw – Rethrowing an exception – Restricting exceptions - Handling exceptions in derived classes - terminate(), abort(), unexpected(), set_terminate(). I/O Streams: Formatted I/O with ios class functions - Manipulators – Creating own manipulator – Overloading << and >> operators.								
	<b>Total</b>								
<b>Course Outcomes</b>									
<b>CO1</b>	Explain the various basic concepts of Object-orientation.								

<b>CO2</b>	Write programs to implement static binding
<b>CO3</b>	Write programs to implement inheritance and dynamic binding
<b>CO4</b>	Write programs to implement templates and exception handling and learn how to use STL class library.
<b>CO5</b>	Write programs implementing File and Stream I/O.
<b>Textbooks</b>	
1	Herbert Schildt, <i>C++ - The Complete Reference</i> , Third Edition, TMH, 1999.
2	Grady Booch, <i>Object Oriented Analysis and Design</i> , Pearson Education, 2008. (For Unit I)
<b>Reference Books</b>	
1	Bjarne Stroustrup, <i>The C++ Programming Language</i> , Addison Wesley, 2000.
2	J. P. Cohoon and J. W. Davidson, <i>C++ Program Design – An Introduction to Programming and Object-Oriented Design</i> , Second Edition, McGraw Hill, 1999.
3	C. J. Lippman, <i>C++ Primer</i> , Third Edition, Addison Wesley, 2000.
<b>NOTE: Latest Edition of Textbooks May be Used</b>	

## FIRST YEAR – SEMESTER - II

<b>Object Oriented Programming with C++</b>
Learning Objectives: (for teachers: what they have to do in the class/lab/field) <ul style="list-style-type: none"><li>• Design classes for the given problems.</li><li>• Write programs in C++.</li><li>• Code, debug and execute a C++ program to solve the given problems using an IDE.</li></ul>
Course Outcomes: (for students: To know what they are going to learn) CO1: Design and create classes. Implement Stream I/O as appropriate. CO2: Design appropriate data members and member functions. CO3: Implement functions, friend functions, static members, constructors and compile-time polymorphism. CO4: Implement inheritance, run-time polymorphism and destructors. CO5: Implement templates and exceptions. Use STL class library. Implement File I/O.

<b>List of Programs</b>
<ol style="list-style-type: none"><li>1. Write a class to represent a complex number which has member functions to do the following<ol style="list-style-type: none"><li>a. Set and show the value of the complex number</li><li>b. Add, subtract and multiply two complex numbers</li><li>c. Multiplying the complex number with a scalar value</li></ol></li><li>2. Write a Point class that represents a 2-d point in a plane. Write member functions to<ol style="list-style-type: none"><li>a. Set and show the value of a point</li><li>b. Find the distance between two points</li><li>c. Check whether two points are equal or not</li></ol></li><li>4. Design and implement a class to represent a Solid object.<ol style="list-style-type: none"><li>a. Apart from data members to represent dimensions, use a data member to specify the type of solid.</li><li>b. Use functions to calculate volume and surface area for different solids.</li></ol></li><li>5. Design a class representing time in hh:mm:ss. Write functions to<ol style="list-style-type: none"><li>a. Set and show the time</li><li>b. Find the difference between two time objects</li><li>c. Adding a given duration to a time</li><li>d. Conversion of the time object to seconds</li></ol></li><li>6. Design a 3x3 matrix class and demonstrate the following:<ol style="list-style-type: none"><li>a. Addition and multiplication of two matrices using operator overloading</li><li>b. Maintaining a count of the number of matrix object created</li></ol></li><li>7. Design a class called cString to represent a string data type. Create a data member in the class to represent a string using an array of size 100. Write the following functionality as member functions:<ol style="list-style-type: none"><li>a. Copy Constructor</li><li>b. Concatenate two strings</li><li>c. Find the length of the string</li><li>d. Reversing a string</li><li>e. Comparing two strings</li></ol></li><li>8. Design a class called cString to represent a string data type. Create a data member in the class to represent a string whose size is dynamically allocated. Write the following as member functions:<ol style="list-style-type: none"><li>a. Copy Constructor</li><li>b. Destructor</li><li>c. Concatenate two strings</li></ol></li></ol>

d.	Find the length of the string
e.	Reversing a string
f.	Comparing two strings

Extended Professional Component	Questions related to the above topics, from various competitive examinations UPSC / TRB / NET / UGC –CSIR / GATE / TNPSC / others to be solved (To be discussed during the Tutorial hour)
Skills acquired from the Course	Knowledge, Problem Solving, Analytical ability, Professional Competency, Professional Communication and Transferrable Skill

<p>Learning Resources:</p> <p><b>Learning Resources:</b></p> <p><b>Recommended Texts</b></p> <ol style="list-style-type: none"> <li>1. Herbert Schildt, <i>C++ - The Complete Reference</i>, Third Edition, TMH, 1999.</li> <li>2. Grady Booch, <i>Object Oriented Analysis and Design</i>, Pearson Education, 2008. (For Unit I)</li> </ol> <p><b>Reference Books</b></p> <ol style="list-style-type: none"> <li>1. Bjarne Stroustrup, <i>The C++ Programming Language</i>, Addison Wesley, 2000.</li> <li>2. J. P. Cohoon and J. W. Davidson, <i>C++ Program Design – An Introduction to Programming and Object-Oriented Design</i>, Second Edition, McGraw Hill, 1999.</li> </ol> <p>C. J. Lippman, <i>C++ Primer</i>, Third Edition, Addison Wesley, 2000.</p>	
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**FIRST YEAR – SEMESTER – II**

**DEPARTMENTAL ELECTIVE– II – Information and Cyber Laws**

Subject code	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
<b>23UCOAE2 5-3</b>	4				3	4	25	75	100
<b>Learning Objectives</b>									
<b>LO1</b>	To review the basic concepts and fundamental knowledge in the field of informatics.								
<b>LO2</b>	To create awareness about the nature of the emerging digital knowledge society and the impact of informatics on business decisions.								
<b>LO3</b>	To enlighten the social informatics in IT & Society								
<b>LO4</b>	To instil the importance of cyber world								
<b>LO5</b>	To create an awareness about the cyber world and cyber regulations								
<b>Prerequisite: Should have studied Commerce in XII Std</b>									
Unit	Contents								No. of Hours
I	Overview of Informatics- meaning, feature and importance - Computer networks & Internet, wireless technology, cellular wireless networks, introduction to mobile phone technology, Purchase of technology, license, guarantee, and warranty. New development in informatics								12
II	Knowledge Skills for Higher Education- Data, information and knowledge, knowledge management, Internet access methods –Dial-up, DSL, Cable, ISDN, Wi-Fi. Internet as a knowledge repository, academic search techniques, creating cyber presence. Academic websites, open access initiatives, opens access publishing models, Introduction to use of IT in teaching and learning - Educational software, Academic services – INFLIBNET, NICNET, BRNET.								12
III	Social Informatics- IT & Society– issues and concerns– digital divide, IT & development, IT for national integration, overview of IT application in medicine, healthcare, business, commerce, industry, defence, law, crime detection, publishing, communication, resource management, weather forecasting, education, film and media, IT in service of disabled, Futuristic IT – artificial intelligence, Virtual reality, bio computing. Health issues – guide lines for proper usage of computers, internet and mobile phones E-wastes and green computing, impact of IT on language & culture-localization issues								12
IV	CYBER WORLD - Cyber space, information overload, cyber ethics, cyber addictions, cybercrimes – categories – person, property, Government – types - stalking, harassment, threats, security & privacy issues								12
V	CYBER REGULATIONS – Scope of cyber laws, - Provisions under								12



	IT Act 2000, cyber related Provisions under IPC	
	<b>TOTAL</b>	<b>60</b>
<b>CO</b>	<b>Course Outcomes</b>	
<b>CO1</b>	Apply Information Security Standards compliance during software design and development	
<b>CO2</b>	Analyze the knowledge skills in informatics	
<b>CO3</b>	Implication of social informtics in IT & society and various consequences in social informatics	
<b>CO4</b>	Understand the concept of cybercrime and its effect on outside world	
<b>CO5</b>	Interpret and apply IT law in various legal issues	
<b>Textbooks</b>		
1	Ramesh Bangia. Learning Computer Fundamentals, Khanna Publishers, New Delhi	
2	Rajaraman, Introduction to information Technology, PHI, New Delhi.	
3	Alexis Leon & Mathews Leon. Fundamentals of Information Technology, Vikas Publishing House, New Delhi.	
4	Ramachandran et.al , Informatics and Cyber laws, Green Tech Books, Thiruvananthapuram	
<b>Reference Books</b>		
1	Barbara Wilson. Information Technology: The Basics, Thomson Learning	
2	George Beekman, Eugene Rathswohl. Computer Confluence, Pearson Education, New Delhi.	
3	IT Act 2000, 8. RohasNagpal, IPR & Cyberspace – Indian Perspective	
<b>NOTE: Latest Edition of Textbooks May be Used</b>		
<b>Web Resources</b>		
1	<a href="https://www.google.co.in/books/edition/INFORMATICS/jKd2BAAAQBAJ?hl=en&amp;gbpv=1&amp;dq=informatics%20and%20cyber%20laws&amp;pg=PP1&amp;printsec=frontcover">https://www.google.co.in/books/edition/INFORMATICS/jKd2BAAAQBAJ?hl=en&amp;gbpv=1&amp;dq=informatics%20and%20cyber%20laws&amp;pg=PP1&amp;printsec=frontcover</a>	
2	<a href="https://www.google.co.in/books/edition/Cybercrime%20and%20Information%20Technology/mZhFEAAAQBAJ?hl=en&amp;gbpv=1&amp;dq=informatics%20and%20cyber%20laws&amp;pg=PP1&amp;printsec=Frontcover">https://www.google.co.in/books/edition/Cybercrime and Information Technology/mZhFEAAAQBAJ?hl=en&amp;gbpv=1&amp;dq=informatics%20and%20cyber%20laws&amp;pg=PP1&amp;printsec=Frontcover</a>	
3	<a href="https://www.youtube.com/watch?v=NG2KAtL_QtQ&amp;list=PLb_GOtSrdPpDpqXiMApZw265y35dm4QKe">https://www.youtube.com/watch?v=NG2KAtL_QtQ&amp;list=PLb_GOtSrdPpDpqXiMApZw265y35dm4QKe</a>	

<b>Semester-II</b>	<b>SKILL ENHANCEMENT COURSE-2 (NME –II) FUNDAMENTALS OF FINTECH</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>23UCOAN26</b>		<b>2</b>			<b>2</b>

**Learning Objectives:**

<b>LO1:</b>	To educate the students to introduce Fintech
<b>LO2:</b>	To gain knowledge in Financial Technology and Digital payments
<b>LO3:</b>	To acquire knowledge in Cryptocurrencies
<b>LO4:</b>	To know the knowledge in Block Chain Technology
<b>LO5:</b>	To understand the effects of fintech on various sectors

**Course Outcomes:**

	After the successful completion of the course, the students will be able to:
<b>CO1:</b>	Identify the benefits of FinTech industry;
<b>CO2:</b>	Enable a better understanding of Financial Technology and Digital Payments
<b>CO3:</b>	Analyse the functioning of Cryptocurrency
<b>CO4:</b>	Explain the impact of Block Chain Technology
<b>CO5:</b>	Evaluate the effects of Fintech on various sectors

**Unit I: Introduction to Fintech**

Introduction – Meaning of FinTech - Definitions - The History And Evolution Of The Fintech Industry - FinTech Ecosystem - Recent Developments - FinTech In India - FinTech Market Trends In India - Types Of FinTech or Transformation of Financial Services - Benefits Of FinTech - Drawbacks Of FinTech - Key Growth Drivers -Challenges

**Unit II: Financial Technology and Digital Payments**

Introduction -Artificial Intelligence (AI) in FinTech-Machine Learning in FinTech - Machine Learning in Accounting and Finance - Robotic Process Automation (RPA) -- Financial Data Analytics - Data Science and Big Data in FinTech - Digital Payments - Cashless Society - DFS Eco System -Developing Countries and DFS: The Story of Mobile Money - RTGS networks;

**Unit III: Cryptocurrencies**

Cryptocurrencies - benefits - disadvantages - Examples of cryptocurrencies - Outline of cryptocurrency – types- wallet - Legal and Regulatory Implications - legal position of cryptocurrencies in India - Impact on cryptocurrencies

**Unit IV: Blockchain Technology**

Blockchain Technology in FinTech – An understanding of Blockchain technology, its potential, and applications - BCT in Banking – Benefits of BCT in banking - BCT in Indian Banking Sector - BCT in supply chain management

**Unit V: Effects of Fin-Tech on Various Sectors**

Effects of Fin-tech on Payment Innovations – The Implications of Fintech On Real Estate, Insurance, Health, And Payment Innovations - The effects of Fin-tech on Payment Innovations – Health- Real-Estate- Insurance Sector- Capital Market - Key Fin-tech trends - FinTech Around the Globe: Asia, Middle East, South America, Europe, Southeast Asia / Australia and Africa

**Recent Trends in Fintech**

Faculty member will impart the knowledge on recent trends in Fintech to the students and these components will not cover in the examination.

**Text Books:**

1. Dheenadhayalan V and Vijay C, 2022 Fintech, Vijay Nicole Imprints Pvt. Ltd, Chennai
2. Sanjay Phadke., 2020 Fintech Future : The Digital Dna Of Finance Paperback –
3. Agustín Rubini, 2021 Fintech in a Flash: Financial Technology Made Easy (new edition) Kindle Edition

**Supplementary Readings:**

1. Aravind Narayanan 2022 Bitcoin and Cryptocurrency Technologies: A Comprehensive Introduction
2. Joseph Bonneau, Edward Felten, Andrew Miller, Steven Goldfeder, 2022 Princeton University
3. SlavaGomzin 2020 Bitcoin for Non-Mathematicians: Exploring the foundations of Crypto, Universal Publishers, USA
4. The Robotics Process Automation, Handbook: A Guide to Implementing, Tom Taulli/ Apress, Latest 1 ST Edition 2020 Website Reference:  
<https://www.ibm.com/industries/banking-financial-markets/resources/omnichannelbanking-paper/>. <https://thefinancialbrand.com/111080/evolution-future-digital-banking-baas>
5. Diamandis, P. H., & Kotler, S. 2020. The Future Is Faster Than You Think: How Converging Technologies Are Disrupting Business, Industries, and Our Lives. New York: Simon & Schuster

<b>SEMESTER: III CORE-V PART: III</b>	<b>23UCOAC33: CORPORATE ACCOUNTING I</b>	<b>CREDIT: 5 HOURS: 5/W</b>
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<b>Learning Objectives</b>		
<b>LO1</b>	To understand about the pro-rata allotment and Underwriting of Shares	
<b>LO2</b>	To know the provisions of companies Act regarding Issue and Redemption of Preference shares and debentures	
<b>LO3</b>	To learn the form and contents of financial statements as per Schedule III of Companies Act 2013	
<b>LO4</b>	To examine the various methods of valuation of Goodwill and shares	
<b>LO5</b>	To identify the Significance of International financial reporting standard (IFRS)	
<b>Prerequisite: Should have studied Financial Accounting in I Year</b>		
Unit	Contents	No. of Hours
I	<b>Issue of Shares</b> Issue of Shares – Premium - Discount - Forfeiture - Reissue – Pro-rata Allotment Issue of Rights and Bonus Shares - Underwriting of Shares and Debentures – Underwriting Commission - Types of Underwriting.	15
II	<b>Issue &amp; Redemption of Preference Shares &amp; Debentures</b> Redemption of Preference Shares–Provisions of Companies Act– Capital Redemption Reserve – Minimum Fresh Issue – Redemption at Par, Premium and Discount. Debentures: Issue and Redemption – Meaning – Methods – In-One lot–in Instalment – Purchase in the Open Market includes Ex Interest and Cum Interest - Sinking Fund Investment Method.	15
III	<b>Final Accounts</b> Introduction – Final Accounts – Form and Contents of Financial Statements as Per Schedule III of Companies Act 2013 – Part I Form of Balance Sheet – Part II Form of Statement of Profit and Loss – Ascertaining Profit for Managerial Remuneration	15
IV	<b>Valuation of Goodwill &amp; Shares</b> Valuation of Goodwill – Meaning – Need for Valuation of Goodwill – Methods of Valuing Goodwill – Average Profit – Super Profit – Annuity and Capitalisation Method. Valuation of Shares – Need for Valuation of Shares – Methods of Valuation of Shares – Net Assets Method – Yield and Fair Value Methods.	15
V	<b>Indian Accounting Standards</b> International Financial Reporting Standard (IFRS)–Meaning and its Applicability in India - Indian Accounting Standards – Meaning – Objectives – Significance – Procedures for Formulation of Standards – Ind AS – 1 Presentation of Financial Statement, Ind AS – 2 Valuation of Inventories, Ind AS – 7 Cash Flow Statement, Ind AS – 8 Accounting Policies, Changes in Accounting Estimate and Errors, Ind AS – 16 – Property, Plant & Equipment, Ind AS 38 – Intangible Assets Ind AS – 103, Business Combinations Ind AS 110, Consolidated Financial Statement. (Theory Only)	15
<b>TOTAL</b>		<b>75</b>
<b>THEORY 20% &amp; PROBLEMS 80%</b>		
<b>Course Outcomes</b>		
<b>CO1</b>	Prepare and account for various entries to be passed in case of issue, forfeiture and reissue of shares and compute the liability of underwrites	
<b>CO2</b>	Asses the accounting treatment of issue and redemption of preference shares and debentures	
<b>CO3</b>	Construct Financial Statements applying relevant accounting treatments	
<b>CO4</b>	Compute the value of goodwill and shares under different methods and assess its applicability	
<b>CO5</b>	Integrate theoretical knowledge on all accounting in par with IFRS and IND AS	

<b>Textbooks</b>	
1	S.P. Jain and N.L. Narang, Advanced Accounting Vol I, Kalyani Publication, New Delhi.
2	R.L. Gupta and M. Radha swamy, Advanced Accounts Vol I, Sultan Chand, New Delhi.
3	Broman, Corporate Accounting, Taxmann, New Delhi.
4	Shukla, Grewal and Gupta- Advanced Accounts Vol I, S.Chand, New Delhi.
5	M.C.Shukla, Advanced accounting Vol I, S.Chand, New Delhi.
<b>Reference Books</b>	
1	T.S. Reddy, A. Murthy – Corporate Accounting- Margham Publication, Chennai.
2	D.S.Rawat&NozerShroff, Students Guide To Accounting Standards ,Taxmann, New Delhi
3	Prof. Mukeshbrambhutt, Devi, Corporate Accounting I, Ahilya Publication, Madhya Pradesh
4	Anil Kumar, Rajesh kumar, Corporate accounting I, Himalaya Publishing house, Mumbai.
5	PrasanthAthma, Corporate Accounting I, Himalaya Publishing house, Mumbai.
<b>NOTE: Latest Edition of Textbooks May be Used</b>	
<b>Web Resources</b>	
1	<a href="https://www.tickertape.in/blog/issue-of-shares/">https://www.tickertape.in/blog/issue-of-shares/</a>
2	<a href="https://www.taxmann.com/bookstore/bookshop/bookfiles/chapter12valuationofgoodwillandshares.pdf">https://www.taxmann.com/bookstore/bookshop/bookfiles/chapter12valuationofgoodwillandshares.pdf</a>
3	<a href="https://www.mca.gov.in/content/mca/global/en/acts-rules/ebooks/accounting-standards.html">https://www.mca.gov.in/content/mca/global/en/acts-rules/ebooks/accounting-standards.html</a>

**MAPPING WITH PROGRAMME OUTCOMES  
AND PROGRAMME SPECIFIC OUTCOMES**

	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
<b>CO1</b>	3	2	3	2	2	2	2	2	3	2	2
<b>CO2</b>	3	2	3	2	2	2	2	2	3	2	2
<b>CO3</b>	3	2	3	2	3	2	2	2	3	2	2
<b>CO4</b>	3	1	3	2	3	2	2	2	3	2	2
<b>CO5</b>	3	3	3	2	3	2	2	2	3	2	2
<b>TOTAL</b>	15	11	15	10	13	10	10	10	15	10	10
<b>AVERAGE</b>	3	2.2	3	2	2.6	2	2	2	3	2	2

**3 – Strong, 2- Medium, 1- Low**

<b>SEMESTER: III CORE-VI PART: III</b>	<b>23UCOAC34: BUSINESS MATHEMATICS &amp; STATISTICS</b>	<b>CREDIT: 5 HOURS: 5/W</b>
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<b>Learning Objectives</b>		
<b>LO1</b>	To impart knowledge on the basics of ratio, proportion, indices and proportions	
<b>LO2</b>	To learn about simple and compound interest and arithmetic, geometric and harmonic progressions.	
<b>LO3</b>	To familiarise with the measures of central tendency	
<b>LO4</b>	To conceptualise with correlation co-efficient	
<b>LO5</b>	To gain knowledge on time series analysis	
<b>Prerequisite: Should have studied Commerce in XII Std</b>		
<b>Unit</b>	<b>Contents</b>	<b>No. of Hours</b>
I	<b>Ratio</b> Ratio, Proportion and Variations, Indices and Logarithms.	<b>15</b>
II	<b>Interest and Annuity</b> Banker's Discount – Simple and Compound Interest - Arithmetic, Geometric and Harmonic Progressions. Annuity - Meaning - Types of Annuity Applications.	<b>15</b>
III	<b>Business Statistics Measures of Central Tendency</b> Arithmetic Mean, Geometric Mean - Harmonic Mean - Mode and Median – Quartiles – Deciles - Percentiles. Measures of Variation – Range - Quartile Deviation and Mean Deviation - Variance and Standard Deviation & Co-efficient.	<b>15</b>
IV	<b>Correlation and Regression</b> Correlation - Karl Pearson's Coefficient of Correlation – Spearman's Rank Correlation – Regression Lines and Coefficients.	<b>15</b>
V	<b>Time Series Analysis and Index Numbers</b> Time Series Analysis : Secular Trend – Seasonal Variation – Cyclical variations - Index Numbers – Aggregative and Relative Index – Chain and Fixed Index –Wholesale Index – Cost of Living Index.	<b>15</b>
<b>TOTAL</b>		<b>75</b>
<b>Course Outcomes</b>		
<b>CO1</b>	Learn the basics of ratio, proportion, indices and logarithm	
<b>CO2</b>	Familiarise with calculations of simple and compound interest and arithmetic, geometric and harmonic progressions.	
<b>CO3</b>	Determine the various measures of central tendency	
<b>CO4</b>	Calculate the correlation and regression co-efficient.	
<b>CO5</b>	Assess problems on time series analysis	
<b>Textbooks</b>		
1	Dr. B.N. Gupta, Business Mathematics & Statistics, Shashibhawan publishing house, Chennai	
2	Asim Kumar Manna, Business Mathematics & Statistics, McGraw hill education, Noida	

3	A.V. Rayarikar and Dr. P.G. Dixit, Business Mathematics & Statistics, Nirali Prakashan Publishing, Pune
4	Dr.S. Sachdeva, Business Mathematics & Statistics, Lakshmi NarainAgarwal, Agra
5	P.R. Vittal, Business Mathematics & Statistics, Margham Publications, Chennai
<b>Reference Books</b>	
1	J.K. Sharma, Fundamentals of business statistics, Vikas publishing, Noida
2	Peter Waxman, Business Mathematics & Statistics, Prentice Hall, New York
3	Andre Francis, Business Mathematics & Statistics, Cengage Learning EMEA, Andover
4	Aggarwal B M, Business Mathematics & Statistics, Ane Book Pvt. Ltd., New Delhi
5	R.S. Bhardwaj, Business Mathematics & Statistics, Excel Books Publisher, New Delhi
<b>NOTE: Latest Edition of Textbooks May be Used</b>	
<b>Web Resources</b>	
1	<a href="https://www.britannica.com/biography/Henry-Briggs">https://www.britannica.com/biography/Henry-Briggs</a>
2	<a href="https://corporatefinanceinstitute.com/resources/data-science/central-tendency/">https://corporatefinanceinstitute.com/resources/data-science/central-tendency/</a>
3	<a href="https://www.expressanalytics.com/blog/time-series-analysis/">https://www.expressanalytics.com/blog/time-series-analysis/</a>

**MAPPING WITH PROGRAMME OUTCOMES  
AND PROGRAMME SPECIFIC OUTCOMES**

	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
<b>CO1</b>	3	2	3	2	2	2	3	2	3	2	2
<b>CO2</b>	3	2	3	2	3	2	3	2	3	2	2
<b>CO3</b>	3	2	3	2	3	2	3	2	3	2	2
<b>CO4</b>	3	2	3	2	2	2	3	2	3	2	2
<b>CO5</b>	3	2	3	2	2	2	3	2	3	2	2
<b>TOTAL</b>	15	10	15	10	12	10	15	10	15	10	10
<b>AVERAGE</b>	3	2	3	2	2.4	2	3	2	3	2	2

**3 – Strong, 2- Medium, 1- Low**

<b>SEMESTER: III ELECTIVE: III PART: III</b>	<b>23UCOAE35-1: PROGRAMMING IN JAVA AND LAB</b>	<b>CREDIT: 3 HOURS: 4/W</b>
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<b>Learning Objectives</b>		
<b>LO1</b>	To provide fundamental knowledge of object-oriented programming.	
<b>LO2</b>	To equip the student with programming knowledge in Core Java from the basics up.	
<b>LO3</b>	To enable the students to use AWT controls, Event Handling and Swing for GUI.	
<b>LO4</b>	To gain practical expertise in coding Core Java programs	
<b>LO5</b>	To become proficient in the use of AWT, Event Handling and Swing.	
<b>Prerequisite: Should have studied Commerce in XII Std</b>		
<b>Unit</b>	<b>Contents</b>	<b>No. of Hours</b>
I	Introduction: Review of Object-Oriented concepts - Java buzzwords (Platform independence, Portability, Threads)- JVM architecture –Java Program structure - –Java main method - Java Console output(System.out) - simple java program - Data types - Variables - type conversion and casting- Java Console input: Buffered input - operators - control statements - Static Data - Static Method - String and String Buffer Classes	
II	Java user defined Classes and Objects – Arrays – constructors - Inheritance: Basic concepts - Types of inheritance - Member access rules - Usage of this and Super key word - Method Overloading - Method overriding - Abstract classes - Dynamic method dispatch - Usage of final keyword	
III	Packages: Definition - Access Protection - Importing Packages - Interfaces: Definition – Implementation – Extending Interfaces Exception Handling: try – catch - throw - throws – finally – Built-in exceptions - Creating own Exception classes - garbage collection, finalise -	
IV	Multithreaded Programming: Thread Class - Runnable interface – Synchronization – Using synchronized methods – Using synchronized statement - Interthread Communication – Deadlock.	
V	Adapter classes - Inner classes -Java Util Package / Collections Framework: Collection & Iterator Interface- Enumeration- List and ArrayList- Vector- Comparator	
<b>TOTAL</b>		



<b>Course Outcomes</b>	
<b>CO1</b>	Understand the basic Object-oriented concepts .Implement the basic constructs of Core Java
<b>CO2</b>	Implement inheritance, packages, interfaces and exception handling of Core Java.
<b>CO3</b>	Implement multi-threading and I/O Streams of Core Java
<b>CO4</b>	Code, debug and execute Java programs to solve the given problems
<b>CO5</b>	Implement functionality using String and String Buffer classes
<b>Textbooks</b>	
1	Herbert Schildt, The Complete Reference, Tata McGraw Hill, New Delhi, 7th Edition, 2010.
2	Gary Cornell, Core Java 2 Volume I – Fundamentals, Addison Wesley, 1999.
<b>Reference Books</b>	
1	Head First Java, O’Rielly Publications, Y. Daniel Liang, Introduction to Java Programming, 7th Edition, Pearson Education India, 2010.

<b>Java Programming Lab</b>	<b>Core -S2EC1L</b>
Learning Objectives: (for teachers: what they have to do in the class/lab/field)	
<ul style="list-style-type: none"> <li>• To gain practical expertise in coding Core Java programs</li> <li>• To become proficient in the use of AWT, Event Handling and Swing.</li> </ul>	
Course Outcomes: (for students: To know what they are going to learn)	
CO1: Code, debug and execute Java programs to solve the given problems	
CO2: Implement multi-threading and exception-handling	
CO3: Implement functionality using String and String Buffer classes	

<b>List of Programs</b>
<ol style="list-style-type: none"> <li>1. Write a Java program that prompts the user for an integer and then prints out all the prime numbers up to that Integer?</li> <li>2. Write a Java program to multiply two given matrices.</li> <li>3. Write a Java program that displays the number of characters, lines and words in a text?</li> <li>4. Generate random numbers between two given limits using Random class and print messages according to the range of the value generated.</li> <li>5. Write a program to do String Manipulation using Character Array and perform the following string operations: <ol style="list-style-type: none"> <li>a) String length</li> <li>b) Finding a character at a particular position</li> <li>c) Concatenating two strings</li> </ol> </li> <li>6. Write a program to perform the following string operations using String class: <ol style="list-style-type: none"> <li>a) String Concatenation</li> <li>b) Search a substring</li> </ol> </li> </ol>

- c) To extract substring from given string
7. Write a program to perform string operations using String Buffer class:
- a) Length of a string
- b) Reverse a string
- c) Delete a substring from the given string
8. Write a java program that implements a multi-thread application that has three threads. First thread generates random integer every 1 second and if the value is even, second thread computes the square of the number and prints. If the value is odd, the third thread will print the value of cube of the number.
9. Write a threading program which uses the same method asynchronously to print the numbers 1 to 10 using Thread1 and to print 90 to 100 using Thread2.
10. Write a program to demonstrate the use of following exceptions.
- a) Arithmetic Exception
- b) Number Format Exception
- c) Array Index Out of Bound Exception
- d) Negative Array Size Exception

Extended Professional Component	Questions related to the above topics, from various competitive examinations UPSC / TRB / NET / UGC –CSIR / GATE / TNPSC / others to be solved (To be discussed during the Tutorial hour)
Skills acquired from the course	Knowledge, Problem Solving, Analytical ability, Professional Competency, Professional Communication and Transferrable Skill

Learning Resources:

Recommended Texts

Herbert Schildt, The Complete Reference, Tata McGraw Hill, New Delhi, 7th Edition, 2010.

Gary Cornell, Core Java 2 Volume I – Fundamentals, Addison Wesley, 1999.

Reference Books

Head First Java, O’Rielly Publications, Y. Daniel Liang, Introduction to Java Programming, 7th Edition, Pearson Education India, 2010.

Web resources: Web resources from NDL Library, E-content from open-source libraries

### MAPPING WITH PROGRAMME OUTCOMES AND PROGRAMME SPECIFIC OUTCOMES

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
<b>CO1</b>	3	2	3	2	2	2	3	2	3	2	2
<b>CO2</b>	3	2	3	2	3	2	3	2	3	2	2
<b>CO3</b>	3	2	3	2	3	2	3	2	3	2	2
<b>CO4</b>	3	2	3	2	2	2	3	2	3	2	2
<b>CO5</b>	3	2	3	2	2	2	3	2	3	2	2
<b>TOTAL</b>	15	10	15	10	12	10	15	10	15	10	10
<b>AVERAGE</b>	3	2	3	2	2.4	2	3	2	3	2	2

**3 – Strong, 2- Medium, 1- Low**

<b>SEMESTER: III ELECTIVE: III PART: III</b>	<b>23UCOAE35-2: WEB TECHNOLOGY(PHP) AND LAB</b>	<b>CREDIT: 3 HOURS: 4/W</b>
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<b>Learning Objectives</b>		
<b>LO1</b>	To use PHP and MySQL to develop dynamic web sites for user on the Internet	
<b>LO2</b>	To develop web sites ranging from simple online information forms to complex e-commerce sites with MySQL database, building, connectivity, and maintenance	
<b>LO3</b>	The objectives of this course are to have a practical understanding about how to write PHP code to solve problems	
<b>LO4</b>	Test, debug, and deploy web pages containing PHP and MySQL.	
<b>LO5</b>	It also aims to introduce practical session to develop simple applications using PHP and MySQL.	
<b>Prerequisite: Should have studied Commerce in XII Std</b>		
<b>Unit</b>	<b>Contents</b>	<b>No. of Hours</b>
I	Introducing PHP – Basic development Concepts – Creating first PHP Scripts – Using Variable and Operators – Storing Data in variable – Understanding Data types – Setting and Checking variables Data types – Using Constants – Manipulating Variables with Operators.	
II	Controlling Program Flow: Writing Simple Conditional Statements - Writing More Complex Conditional Statements – Repeating Action with Loops – Working with String and Numeric Functions.	
III	Working with Arrays: Storing Data in Arrays – Processing Arrays with Loops and Iterations –Using Arrays with Forms - Working with Array Functions – Working with Dates and Times.	
IV	Using Functions and Classes: Creating User-Defined Functions - Creating Classes – Using Advanced OOP Concepts.	
V	Working with Database and SQL : Introducing Database and SQL- Using MySQL-Adding and modifying Data-Handling Errors – Using SQLite Extension and PDO Extension. Introduction XML - Simple XML and DOM Extension.	
	<b>TOTAL</b>	
<b>CO</b>	<b>Course Outcomes</b>	
<b>CO1</b>	Understand the general concepts of PHP scripting language for the development of Internet websites.	

<b>CO2</b>	Understand the basic functions of MySQL database program and XML concepts
<b>CO3</b>	Learn the relationship between the client side and the server side scripts.
<b>CO4</b>	Create dynamic Web applications such as content management, user registration, and ecommerce using PHP and to understand the ability to post and publish a PHP website.
<b>CO5</b>	Develop a MySQL database and establish connectivity using MySQL.
<b>Textbooks</b>	
1	Vikram Vaswani, "PHP A Beginner's Guide", Tata McGraw Hill 2008.
<b>Reference Books</b>	
1	Steven Holzner , "The PHP Complete Reference", Tata McGraw Hill, 2007.
2	Steven Holzer , "Spring into PHP", Tata McGraw Hill 2011, 5thEdition.
<b>NOTE: Latest Edition of Textbooks May be Used</b>	
<b>Web Resources</b>	
1	<a href="https://www.w3schools.com/php/">https://www.w3schools.com/php/</a>
2	<a href="https://www.phptpoint.com/php-tutorial-pdf/">https://www.phptpoint.com/php-tutorial-pdf/</a>
3	<a href="http://www.xmlsoftware.com/">http://www.xmlsoftware.com/</a>

<b>WEB TECHNOLOGY LAB</b>	
<b>Learning Objectives:</b> (for teachers: what they have to do in the class/lab/field)	
<ul style="list-style-type: none"> <li>• The objectives of this course are to have a practical understanding about how to write PHP code to solve problems.</li> <li>• Display and insert data using PHP and MySQL.</li> <li>• Test, debug, and deploy web pages containing PHP and MySQL.</li> <li>• It also aims to introduce practical session to develop simple applications using PHP and MySQL.</li> </ul>	
<b>Course Outcomes:</b> (for students: To know what they are going to learn)	
<ol style="list-style-type: none"> <li>1. On the completion of this laboratory course the students ought to</li> <li>2. Obtain knowledge and develop application programs using Python.</li> <li>3. Create dynamic Web applications such as content management, user registration, and ecommerce using PHP and to understand the ability to post and publish a PHP website.</li> <li>4. Develop a MySQL database and establish connectivity using MySQL.</li> </ol>	

<b>LIST OF PRACTICALS</b>
<ol style="list-style-type: none"> <li>1. Write a PHP program which adds up columns and rows of given table</li> <li>2. Write a PHP program to compute the sum of first n given prime numbers</li> <li>3. Write a PHP program to find valid an email address</li> <li>4. Write a PHP program to convert a number written in words to digit.</li> </ol>

5. Write a PHP script to delay the program execution for the given number of seconds.
6. Write a PHP script, which changes the colour of the first character of a word
7. Write a PHP program to find multiplication table of a number.
8. Write a PHP program to calculate Factorial of a number.
9. Write a PHP code to create a student mark sheet table. Insert, delete and modify records.
10. From a XML document (email.xml), write a program to retrieve and print all the e-mail addresses from the document using XML
11. From a XML document (tree.xml), suggest three different ways to retrieve the text value'John' using the DOM:
12. Write a program that connects to a MySQL database and retrieves the contents of any one of its tables as an XML file. Use the DOM.

Extended Professional Component	Questions related to the above topics, from various competitive examinations UPSC / TRB / NET / UGC – CSIR / GATE / TNPSC / others to be solved (To be discussed during the Tutorial hour)
Skills acquired from the Course	Knowledge, Problem Solving, Analytical ability, Professional Competency, Professional Communication and Transferrable Skill

**MAPPING WITH PROGRAMME OUTCOMES  
AND PROGRAMME SPECIFIC OUTCOMES**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
<b>CO1</b>	3	2	3	2	2	2	3	2	3	2	2
<b>CO2</b>	3	2	3	2	3	2	3	2	3	2	2
<b>CO3</b>	3	2	3	2	3	2	3	2	3	2	2
<b>CO4</b>	3	2	3	2	2	2	3	2	3	2	2
<b>CO5</b>	3	2	3	2	2	2	3	2	3	2	2
<b>TOTAL</b>	15	10	15	10	12	10	15	10	15	10	10
<b>AVERAGE</b>	3	2	3	2	2.4	2	3	2	3	2	2

**3 – Strong, 2- Medium, 1- Low**

<b>SEMESTER: III SEC: IV PART: III</b>	<b>23UCOAS36: STOCK MARKET OPERATIONS</b>	<b>CREDIT: 1 HOURS: 1/W</b>
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<b>Learning Objectives:</b>	
<b>LO1:</b>	To acquaint students with knowledge of Securities Market
<b>LO2:</b>	To enable the students to understand the knowledge of Practice Trading on Stock Market
<b>LO3:</b>	To impart the students to understand the legal frame work of securities Market
<b>LO4:</b>	To enables the students to have depth knowledge in different segment of stock exchange
<b>LO5:</b>	To understand the role of Demat Trading
<b>Course Outcomes:</b>	
	After the successful completion of the course, the students will be able to:
<b>CO1:</b>	Explain the basic concept of Securities Market
<b>CO2:</b>	Practice Trading on Stock Market
<b>CO3:</b>	Analyse the legal Frame work of Securities Market
<b>CO4:</b>	Explain different segment of Stock Exchange
<b>CO5:</b>	Perform Demat Trading

**Unit I: Introduction**

Concept and types of Securities; Concept of return; Concept, types and measurement of risk; Development of Securities market in India

**Unit II: Primary Market**

Concept, Functions and Importance; Functions of New Issue Market (IPO, FPO & OFS); Methods of Floatation- fix price method and book building method; Pricing of Issues; Offer Documents; Appointment and Role of Merchant Bankers, Underwriters, Lead Managers, Syndicate Members, Brokers, Registrars, Bankers, ASBA; SME IPOs and Listing of Securities.

**Unit III: Secondary Market**

Concept; Functions and Importance; Mechanics of Stock Market Trading-Different Types of Orders, Screen Based Trading, Internet-Based Trading and Settlement Procedure; Types of Brokers.

**Unit IV: Regulatory Framework**

SEBI (Issue of Capital and Disclosure Requirements) Regulation 2018; Stock Exchanges and Intermediaries; SEBI and Investor Protection; Securities Contract Regulation Act and SEBI (Listing Obligations and Disclosure Requirements) Regulation 2015.

**Unit V: Demat Trading**

Concept and Significance; Role of Depositories and Custodian of Securities in Demat Trading; SEBI Guidelines and other Regulations Relating to Demat Trading; Procedure of Demat Trading.

### **Practical Exercises:**

The learners are required to:

1. Prepare the steps involved in pre and post management of hypothetical case of IPO/FPO.
2. Make a comparative analysis of IPOs to identify parameters of success and causes of failure.
3. Expose themselves to trading screen of National Stock Exchange (www.nseindia.com) and demonstrate
  - a) Procedure of placing buying /selling order.
  - b) Trading Workstation Station (TWS) of spot market and financial derivative markets(Futures and Options).
4. Learn demat trading and investment with the help of relevant software (Working on Virtualtrading platform).

### **Recent Trends in Stock Market**

Faculty member will impart the knowledge on recent trends in Stock Market to the students and these components will not cover in the examination.

### **Text Books:**

1. Gordon, E., & Natarajan, K. 2019. Financial Markets and Services. New Delhi: Himalaya Publishing House. New Delhi
2. Benjamin, G. 1949. The Intelligent Investor. New York: Harper Publishing.
3. Dalton, J. M. 2001. How The Stock Market Works? New York: Prentice Hall Press. Machiraju, H.
4. Machiraju, H. R. 2019. Merchant Banking. New Delhi: New Age Publishers.

### **Supplementary Readings:**

1. Gitman and Joehnk 2015, Fundamentals of Investing, Pearson Publications, New Delhi.
2. Chandra Prasanna, 2017, Investment Analysis and Portfolio Management, Tata McGraw Hill, New Delhi.
3. Damodaran Asath 2016, Investment Valuation: Tool and Techniques for Determining the value of any Asset, Wiley Finance., New Delhi
4. Bhole L.M 2015, Financial Institutions and Markets Tata McGraw Hill Publishing Company Ltd, New Delhi

<b>SEMESTER: III SEC: V PART: III</b>	<b>23UCOAS37: NEW VENTURE PLANNING &amp; DEVELOPMENT</b>	<b>CREDIT: 2 HOURS: 2/W</b>
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<b>Learning Objectives:</b>	
<b>LO1:</b>	To acquaint students with knowledge of Setting up a new Business
<b>LO2:</b>	To enable the students to understand the legal challenges in setting up Business
<b>LO3:</b>	To impart the students to search for entrepreneurial capital
<b>LO4:</b>	To enables the students to have depth knowledge in marketing aspects of new ventures
<b>LO5:</b>	To understand the role Business Plan Preparation for New Ventures
<b>Course Outcomes:</b>	
	After the successful completion of the course, the students will be able to:
<b>CO1:</b>	Generate a business idea using different techniques and describe sources of innovative ideas
<b>CO2:</b>	Evaluate advantages of acquiring an ongoing venture with a case study;
<b>CO3:</b>	Present a comparative analysis of various government schemes which are suitable for the business idea;
<b>CO4:</b>	Develop a marketing plan for a business idea;
<b>CO5:</b>	Prepare and present a well-conceived Business Plan

### **Unit I: Starting New Ventures**

New Venture: Meaning and features. Opportunity identification. The search for new ideas. Source of innovative ideas. Techniques for generating ideas. Entrepreneurial imagination and creativity: The role of creative thinking. Developing creativity. Impediments to creativity. The pathways to New Ventures for Entrepreneurs, Creating New Ventures. Acquiring an established Venture: Advantages of acquiring an ongoing Venture. Evaluation of key issues. Franchising: How a Franchise works. Franchise law. Evaluating the franchising opportunities.

### **Unit II: Legal Challenges in Setting up Business**

Intellectual Property Protection: Patents, Trademarks, and Copyrights. Requirements and Procedure for filing a Patent, Trademark, and Copyright. Legal acts governing businesses in India. Identifying Form of Organisation and their procedures and compliances.

### **Unit III: Search for Entrepreneurial Capital**

The Entrepreneur's Search for Capital. The Venture Capital Market. Criteria for evaluating New-Venture Proposals. Evaluating the Venture Capitalist. Financing stages. Alternate Sources of Financing for Indian Entrepreneurs. Bank Funding. Government Policy Packages. State Financial Corporations (SFCs). Business Incubators and Facilitators. Informal risk capital: Angel Investors. Government schemes for new ventures like: Startup India, Stand Up India, Make in India, etc.

### **Unit IV: Marketing Aspects of New Ventures**

Developing a Marketing Plan: Customer Analysis, Geographical Analysis, Economical Analysis, Linguistic Analysis, Sales Analysis and Competition Analysis. Market Research. Sales Forecasting. Evaluation. Pricing Decision.

### **Unit V: Business Plan Preparation for New Ventures**

Business Plan: Concept. Pitfalls to Avoid in Business Plan. Benefits of a Business Plan. Developing a Well-Conceived Business Plan. Elements of a Business Plan: Executive Summary. Business Description. Marketing: Market Niche and Market Share. Research,



Design and Development. Operations. Management. Finances. Critical-Risk. Harvest Strategy. Milestone Schedule

**Practical Exercises:**

The learners are required to:

1. Generate a business idea using different techniques and describe sources of innovative ideas.
2. Evaluate advantages of acquiring an ongoing venture with a case study.
3. Present an idea which can have IPR like patents along with comparative analysis of patents already granted in similar field.
4. Present a comparative analysis of various government schemes which are suitable for the business idea (developed in exercise 1).
5. Develop a marketing plan for the business idea (developed in exercise 1).
6. Prepare and present a well-conceived Business Plan.

<b>Recent Trends in New Venture Planning &amp; Development</b>
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Faculty member will impart the knowledge on recent trends in New Venture Planning & Development to the students and these components will not cover in the examination.
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**Text Books:**

1. Allen, K. R. (2015). Launching New Ventures: An Entrepreneurial Approach. Boston: Cengage Learning
2. Barringer, B. R., & Ireland, R. D. (2015). Entrepreneurship: Successfully Launching New Ventures. London: Pearson.
3. Kuratko, D. F., & Rao, T. V. (2012). Entrepreneurship: A South-Asian Perspective. Boston: Cengage Learning
4. Donald F Kuratko and Jeffrey S Hons by 2021 New Venture Management Routledge, USA

**Supplementary Readings:**

1. Colin Barrow Paul Barrow Robert Brown 2015 The Business Plan Work Book: A Practical Guide to New Venture, Kogan Page Ltd, Great Britain
2. David Butler 2006 Enterprise Planning and Development Routledge USA
3. David Butler 2014 Business Planning for New Ventures: A Guide to Start up, Routledge USA
4. Robert N Lussier Joel Corman 2014 Entrepreneurial New Venture Skills Routledge USA

<b>SEMESTER: IV</b> <b>CORE: VII</b> <b>PART: III</b>	<b>23UCOAC43: CORPORATE ACCOUNTING - II</b>	<b>CREDIT: 5</b> <b>HOURS: 5/W</b>
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	<b>LO1</b>	To know the types of Amalgamation, Internal and external Reconstruction
	<b>LO2</b>	To know Final statements of banking companies
	<b>LO3</b>	To understand the accounting treatment of Insurance company accounts
	<b>LO4</b>	To understand the procedure for preparation of consolidated Balance sheet
	<b>LO5</b>	To have an insight on modes of winding up of a company
<b>Prerequisite: Should have studied Financial Accounting in I Year</b>		
	<b>Unit</b>	<b>Contents</b>
	<b>No. of Hours</b>	
	<b>I</b>	<b>Amalgamation, Internal &amp; External Reconstruction</b> Amalgamation – <b>Meaning</b> - Purchase Consideration - Lump sum Method, Net Assets Method, Net Payment Method, Intrinsic Value Method - Types of <b>Methods of Accounting for Amalgamation</b> - <b>The Pooling of Interest Method - The Purchase Method</b> (Excluding Inter-Company Holdings). <b>Internal &amp; External Reconstruction</b> <b>Internal Reconstruction – Conversion of Stock – Increase and Decrease of Capital – Reserve Liability - Accounting Treatment of External Reconstruction</b>
	<b>15</b>	
	<b>II</b>	<b>Accounting of Banking Companies</b> Final Statements of Banking Companies (As Per New Provisions) - Non-Performing Assets - Rebate on Bills Discounted- Profit and Loss a/c - Balance Sheet as Per Banking Regulation Act 1949.
	<b>15</b>	
	<b>III</b>	<b>Insurance Company Accounts:</b> Meaning of Insurance – Principles – Types – Preparation of Final Accounts of Insurance Companies – Accounts of Life Insurance Business – Accounts of General Insurance Companies -New Format.
	<b>15</b>	
	<b>IV</b>	<b>Consolidated Financial Statements</b> Introduction-Holding & Subsidiary Company-Legal Requirements Relating to Preparation of Accounts -Preparation of Consolidated Balance Sheet (Excluding Inter-Company Holdings).
	<b>15</b>	
	<b>V</b>	<b>Liquidation of Companies</b> Meaning-Modes of Winding Up – Preparation of Statement of Affairs and Statement of Deficiency <b>or Surplus (List H)</b> Order of Payment – Liquidators Remuneration- Liquidator’s Final Statement of Accounts.
	<b>15</b>	
	<b>TOTAL</b>	<b>75</b>
<b>THEORY 20% &amp; PROBLEMS 80%</b>		
<b>Course Outcomes</b>		
	<b>CO1</b>	Understand the accounting treatment of amalgamation, Internal and external reconstruction
	<b>CO2</b>	Construct Profit and Loss account and Balance Sheet of Banking Companies in accordance in the prescribed format.
	<b>CO3</b>	Synthesize and prepare final accounts of Insurance companies in the prescribed format
	<b>CO4</b>	Give the consolidated accounts of holding companies

	<b>CO5</b>	Preparation of liquidator's final statement of account
<b>Textbooks</b>		
1	S.P. Jain and K.L Narang. Advanced Accountancy, Kalyani Publishers, New Delhi.	
2	Dr.K.S .Raman and Dr. M.A. Arulanandam , Advanced Accountancy, Vol. II, Himalaya Publishing House, Mumbai.	
3	R.L. Gupta and M. Radhaswamy, Advanced Accounts, Sultan Chand, New Delhi.	
4	M.C. Shukla and T.S. Grewal, Advanced Accounts Vol.II, S Chand & Sons, New Delhi.	
5	T.S. Reddy and A.Murthy, Corporate Accounting II, Margham Publishers, Chennai	
<b>Reference Books</b>		
1	B.Raman, Corporate Accounting, Taxmann, New Delhi	
2	M.C.Shukla, Advanced Accounting,S.Chand, New Delhi	
3	Prof. MukeshBramhbutt, Devi Ahilya publication, Madhya Pradesh	
4	Anil kumar, Rajesh kumar, Advanced Corporate Accounting, Himalaya Publishing house, Mumbai.	
5	PrasanthAthma, Corporate Accounting, Himalaya Publishing house, Mumbai.	
<b>NOTE: Latest Edition of Textbooks May be Used</b>		
<b>Web Resources</b>		
1	<a href="https://www.accountingnotes.net/amalgamation/amalgamation-absorption-and-reconstruction-accounting/126">https://www.accountingnotes.net/amalgamation/amalgamation-absorption-and-reconstruction-accounting/126</a>	
2	<a href="https://www.slideshare.net/debchat123/accounts-of-banking-companies">https://www.slideshare.net/debchat123/accounts-of-banking-companies</a>	
3	<a href="https://www.accountingnotes.net/liquidation/liquidation-of-companies-accounting/12862">https://www.accountingnotes.net/liquidation/liquidation-of-companies-accounting/12862</a>	

**MAPPING WITH PROGRAMME OUTCOMES  
AND PROGRAMME SPECIFIC OUTCOMES**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
<b>CO1</b>	3	2	3	2	2	2	3	2	3	2	2
<b>CO2</b>	3	2	3	2	3	2	3	2	3	2	2
<b>CO3</b>	3	2	3	2	3	2	3	2	3	2	2
<b>CO4</b>	3	2	3	2	2	2	3	2	3	2	2
<b>CO5</b>	3	2	3	2	2	2	3	2	3	2	2
<b>TOTAL</b>	15	10	15	10	12	10	15	10	15	10	10
<b>AVERAGE</b>	3	2	3	2	2.4	2	3	2	3	2	2

**3 – Strong, 2- Medium, 1- Low**

<b>SEMESTER: IV CORE: VIII PART: III</b>	<b>23UCOAC44: COMPANY LAW</b>	<b>CREDIT: 5 HOURS: 5/W</b>
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<b>Learning Objectives</b>		
<b>LO1</b>	To know Company Law 1956 and Companies Act 2013	
<b>LO2</b>	To have an understanding on the formation of a company	
<b>LO3</b>	To understand the requisites of meeting and resolution	
<b>LO4</b>	To gain knowledge on the procedure to appoint and remove Directors	
<b>LO5</b>	To familiarize with the various modes of winding up	
<b>Prerequisite: Should have studied Commerce in XII Std</b>		
<b>Unit</b>	<b>Contents</b>	<b>No. of Hours</b>
I	<b>Introduction to Company law</b> Companies Act 2013 – Definition of a Company, Characteristics of Company – Lifting or Piercing the Corporate Veil – Company Distinguished from Partnership and Limited Liabilities Partnerships – Classification of Companies – Based on Incorporation, Liability, Number of Members, Control.	<b>15</b>
II	<b>Formation of Company</b> Formation of a Company – Promoter –Incorporation Documents e-filing – Memorandum of Association – Contents – Alteration – Legal Effects – Articles of Association - Certificate of Incorporation – Prospectus – Contents - Kinds – Liabilities – Share Capital – Kinds – Issue – Alteration – Dividend – Debentures.	<b>15</b>
III	<b>Meeting</b> Meeting and Resolution – Types – Requisites – Voting & Poll – Quorum – Proxy - Resolution – Ordinary & Special - Audit & Auditors – Qualification, Disqualification, Appointment and Removal of an Auditor -	<b>15</b>
IV	<b>Management &amp; Administration</b> Management & Administration – Directors – Legal Position – Board of Directors – Appointment/ Removal – Disqualification – Director Identification Number – Directorships – Powers – Duties – Board Committees – Related Party Transactions – Contract by One Person Company – Insider Trading- Managing Director – Manager – Secretarial Audit – Administrative Aspects and Winding Up – National Company Law Tribunal (NCLT) – National Company Law Appellate Tribunal (NCLAT) – Special Courts.	<b>15</b>
V	<b>Winding up</b> Meaning – Modes – Compulsory Winding Up – Voluntary Winding Up – Consequences of Winding Up Order – Powers of Tribunal – Petition for Winding Up – Company Liquidator.	<b>15</b>
<b>TOTAL</b>		<b>75</b>
<b>Course Outcomes</b>		
<b>CO1</b>	Understand the classification of companies under the act	
<b>CO2</b>	Examine the contents of the Memorandum of Association & Articles of Association	
<b>CO3</b>	Know the qualification and disqualification of Auditors	
<b>CO4</b>	Understand the workings of National Company Law Appellate Tribunal (NCLAT)	

<b>CO5</b>	Analyse the modes of winding up
<b>Textbooks</b>	
1	N.D. Kapoor, Business Laws, Sultan Chand and Sons, Chennai
2	R.S.N. Pillai – Business Law, S.Chand, New Delhi.
3	M.V. Dhandapani, Business Laws Sultan Chand and Sons, Chennai
4	Shusma Aurora, Business Law, Taxmann, New Delhi
5	M.C.Kuchal, Business Law, VikasPublication, Noida
<b>Reference Books</b>	
1	Gaffoor & Thothadri, Company Law, Vijay Nichole Imprints Limited, Chennai
2	M.R. Sreenivasan, Business Laws, Margham Publications, Chennai
3	KavyaAndVidhyasagar, Business Law, Nithya Publication, Bhopal
4	S.D.Geet, Business Law Nirali Prakashan Publication, Pune
5	PreethiAgarwal, Business Law, CA foundation study material
<b>NOTE: Latest Edition of Textbooks May be Used</b>	
<b>Web Resources</b>	
1	<a href="https://www.mca.gov.in/content/mca/global/en/acts-rules/companies-act/companies-act-2013.html">https://www.mca.gov.in/content/mca/global/en/acts-rules/companies-act/companies-act-2013.html</a>
2	<a href="https://vakilsearch.com/blog/explain-procedure-formation-company/">https://vakilsearch.com/blog/explain-procedure-formation-company/</a>
3	<a href="https://www.investopedia.com/terms/w/windingup.asp">https://www.investopedia.com/terms/w/windingup.asp</a>

**MAPPING WITH PROGRAMME OUTCOMES  
AND PROGRAMME SPECIFIC OUTCOMES**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
<b>CO1</b>	3	2	3	2	3	3	2	3	3	2	2
<b>CO2</b>	3	2	3	2	3	3	2	3	3	2	2
<b>CO3</b>	3	2	3	2	3	3	2	3	3	2	2
<b>CO4</b>	3	2	3	2	3	3	2	3	3	2	2
<b>CO5</b>	3	2	3	2	3	3	2	3	3	2	2
<b>TOTAL</b>	15	10	15	10	15	15	10	15	15	10	10
<b>AVERAGE</b>	3	2	3	2	3	3	2	3	3	2	2

**3 – Strong, 2- Medium, 1- Low**

<b>SEMESTER: IV ELECTIVE: IV PART: III</b>	<b>23UCOAE45-1: RELATIONAL DATABASE MANAGEMENT SYSTEM</b>	<b>CREDIT: 3 HOURS: 3/W</b>
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<b>Learning Objectives</b>		
<b>LO1</b>	Gain a good understanding of the architecture and functioning of Database Management Systems	
<b>LO2</b>	Understand the use of Structured Query Language (SQL) and its syntax.	
<b>LO3</b>	Apply Normalization techniques to normalize a database.	
<b>LO4</b>	Understand the need of transaction processing and learn techniques for controlling the consequences of concurrent data access.	
<b>Prerequisite: Should have studied Commerce in XII Std</b>		
<b>Unit</b>	<b>Contents</b>	<b>No. of Hours</b>
I	Introduction to DBMS– Data and Information - Database – Database Management System – Objectives- Advantages – Components - Architecture. ER Model: Building blocks of ER Diagram –	
II	Relationship Degree – Classification – ER diagram to Tables – ISA relationship – Constraints –Aggregation and Composition – Advantages Structure of Relational Database. Introduction to Relational Database Design - Objectives – Tools –Redundancy and Data Anomaly	
III	– Functional Dependency - Normalization – 1NF – 2NF – 3NF –BCNF. Transaction Processing – Database Security.	
IV	Introduction to SQL: Data Definition Commands – Data Manipulation Commands – SELECT Queries – Additional Data Definition Commands – Additional SELECT Query Keywords – Joining Database Tables. Advanced SQL: Relational SET Operators: UNION – UNION ALL – INTERSECT - MINUS.	
V	SQL Join Operators: Cross Join – Natural Join – Join USING Clause – JOIN ON Clause – Outer Join. Sub Queries and Correlated Queries: WHERE – IN – HAVING – ANY and ALL – FROM. SQL Functions: Date and Time Function – Numeric Function – String Function – Conversion Function	
	<b>TOTAL</b>	
<b>Course Outcomes</b>		
<b>CO1</b>	Describe basic concepts of database system	
<b>CO2</b>	Design a Data model and Schemas in RDBMS	
<b>CO3</b>	Competent in use of SQL	

<b>CO4</b>	Analyse functional dependencies for designing robust Database
<b>Textbooks</b>	
1	S. Sumathi, S. Esakkirajan, “Fundamentals of Relational Database Management System”, Springer International Edition 2007.
<b>Reference Books</b>	
1	Abraham Silberchatz, Henry F. Korth, S. Sudarshan, “Database System Concepts”, McGrawHill 2019, 7th Edition.
2	Alexis Leon & Mathews Leon, “Fundamentals of DBMS”, Vijay Nicole Publications 2014, 2 <sup>nd</sup> Edition.
<b>NOTE: Latest Edition of Textbooks May be Used</b>	
<b>Web Resources</b>	
1	<a href="https://nptel.ac.in/courses/106106093/">https://nptel.ac.in/courses/106106093/</a>
2	<a href="https://nptel.ac.in/courses/106106095/">https://nptel.ac.in/courses/106106095/</a>
3	NPTEL & MOOC courses titled Relational Database Management Systems

**MAPPING WITH PROGRAMME OUTCOMES  
AND PROGRAMME SPECIFIC OUTCOMES**

	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
<b>CO1</b>	3	2	3	2	3	3	2	3	3	2	2
<b>CO2</b>	3	2	3	2	3	3	2	3	3	2	2
<b>CO3</b>	3	2	3	2	3	3	2	3	3	2	2
<b>CO4</b>	3	2	3	2	3	3	2	3	3	2	2
<b>CO5</b>	3	2	3	2	3	3	2	3	3	2	2
<b>TOTAL</b>	15	10	15	10	15	15	10	15	15	10	10
<b>AVERAGE</b>	3	2	3	2	3	3	2	3	3	2	2

**3 – Strong, 2- Medium, 1- Low**

<b>SEMESTER: IV ELECTIVE: IV PART: III</b>	<b>23UCOAE45-2: INTRODUCTION TO DATA SCIENCE</b>	<b>CREDIT: 3 HOURS: 3/W</b>
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<b>Learning Objectives</b>		
<b>LO1</b>	To introduce the concepts, techniques and tools in Data Science	
<b>LO2</b>	To understand the various facets of data science practice, including data collection and integration, exploratory data analysis, predictive modelling, descriptive modelling and effective communication.	
<b>LO3</b>	To describe what Data Science is, what Statistical Inference means, identify probability distributions, fit a model to data and use tools for basic analysis and communication	
<b>LO4</b>	To describe what Data Science is, what Statistical Inference means, identify probability distributions, fit a model to data and use tools for basic analysis and communication	
<b>Prerequisite: Should have studied Commerce in XII Std</b>		
<b>Unit</b>	<b>Contents</b>	<b>No. of Hours</b>
I	<b>Introduction:</b> Benefits and uses – Facets of data – Data science process – Big data ecosystem and data science	
II	<b>The Data science process:</b> Overview – research goals - retrieving data - transformation – Exploratory Data Analysis – Model building - Data Visualization	
III	<b>Algorithms:</b> Machine learning algorithms – Modelling process – Types – Supervised – Unsupervised - Semi-supervised	
IV	<b>Introduction to Hadoop:</b> Hadoop framework – Spark – replacing MapReduce– NoSQL – ACID – CAP – BASE – types	
V	<b>Case Study:</b> Prediction of Disease - Setting research goals - Data retrieval – preparation - exploration - Disease profiling - presentation and automation	
<b>TOTAL</b>		
<b>Course Outcomes</b>		
<b>CO1</b>	To describe what Data Science is, what Statistical Inference means, identify probability distributions, fit a model to data and use tools for basic analysis and communication	
<b>CO2</b>	To describe what Data Science is, what Statistical Inference means, identify probability distributions, fit a model to data and use tools for basic analysis and communication	
<b>CO3</b>	To describe what Data Science is, what Statistical Inference means, identify probability distributions, fit a model to data and use tools for basic analysis and communication	



<b>CO4</b>	To describe what Data Science is, what Statistical Inference means, identify probability distributions, fit a model to data and use tools for basic analysis and communication
<b>CO5</b>	To describe what Data Science is, what Statistical Inference means, identify probability distributions, fit a model to data and use tools for basic analysis and communication
<b>Textbooks</b>	
1	Davy Cielen, Arno D. B. Meysman, Mohamed Ali, “Introducing Data Science”, manning publications 2016
2	Roger Peng, “The Art of Data Science”, lulu.com 2016.
3	MurtazaHaider, “Getting Started with Data Science – Making Sense of Data with Analytics”, IBM press, E-book.
<b>Reference Books</b>	
1	Davy Cielen, Arno D.B. Meysman, Mohamed Ali, “Introducing Data Science: Big Data, Machine Learning, and More, Using Python Tools”, Dreamtech Press 2016.
2	Annalyn Ng, Kenneth Soo, “Numsense! Data Science for the Layman: No Math Added”, 2015, 1st Edition.
3	Cathy O’Neil, Rachel Schutt, “Doing Data Science Straight Talk from the Frontline”, O’Reilly Media 2013.
4	Lillian Pierson, “Data Science for Dummies”, 2015 II Edition
<b>NOTE: Latest Edition of Textbooks May be Used</b>	

**MAPPING WITH PROGRAMME OUTCOMES  
AND PROGRAMME SPECIFIC OUTCOMES**

	<b>PO 1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
<b>CO1</b>	3	2	3	2	2	2	2	2	3	2	2
<b>CO2</b>	3	2	2	2	2	2	2	2	3	2	2
<b>CO3</b>	3	2	3	2	2	2	2	2	3	2	2
<b>CO4</b>	3	2	2	2	2	2	2	2	3	2	2
<b>CO5</b>	3	2	3	2	2	2	2	2	3	2	2
<b>TOTAL</b>	15	10	13	10	10	10	10	10	15	10	10
<b>AVERAGE</b>	3	2	2.6	2	2	2	2	2	3	2	2

**3 – Strong, 2- Medium, 1- Low**

<b>SEMESTER: IV SEC: VI PART: IV</b>	<b>23UCOAS46: BRAND MANAGEMENT</b>	<b>CREDIT: 2 HOURS: 2/W</b>
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<b>Learning Objectives:</b>	
<b>LO1:</b>	To familiarize the basic knowledge on branding
<b>LO2:</b>	To understand brand positioning.
<b>LO3:</b>	To gain knowledge on brand extension
<b>LO4:</b>	To understand the elements of brand equity.
<b>LO5:</b>	To know the position of retail branding.

<b>Course Outcomes:</b>	
	After the successful completion of the course, the students will be able to:
<b>CO1:</b>	Explain the concept of branding
<b>CO2:</b>	Discuss the brand positioning and identify brands
<b>CO3:</b>	Explain the elements of brand extension.
<b>CO4:</b>	Summarize the impact of celebrity brand
<b>CO5:</b>	Discuss the determinants of successful brand management

#### **Unit I: Branding**

Introduction- Advantages and Disadvantages of branding-Branding decisions-Global brand-Brand name- Branding approaches- Brand building – Brand extension and brand dilution-individual and organizational brand -Corporate branding.

#### **Unit II: Brand Positioning**

Brand Positioning - quality of successful of positioning –Positioning process-brand positioning strategy- -Building brand personality-Online brand building.  
Brand identity-sources-brand personality-Brand awareness-Brand loyalty-Brand association-Brand image

#### **Unit III: Brand Extension**

Reasons for brand extensions-Evaluation of brand extension-Bases for brand extension-Types of brand extensions-Advantages and disadvantages of brand extensions. Co-branding-types-Advantages and disadvantages-Functions of brand extensions.

#### **Unit IV: Brand Equity**

Brand equity-key elements: Assets and Liabilities-Value to the Customers-Value to the firm-positive and negative brand equity-Brand personality: dimensions of brand personality-Branding and celebrity endorsement-important aspects of celebrity brand.

#### **Unit V: Brand Management**

Strategic brand management- Successful brand development-effective brand management.

**Retail Branding:** Different branding strategy- retail branding in India- future of retail branding- positioning strategy for retail brands.

**Text Books:**

1. S.L. Gupta 2015 Brand Management Himalaya Publishing House Mumbai
2. Sundar K 2017 , Essentials of Marketing , Vijay Nicole Imprints Private Ltd, Chennai
3. Pillai R.S.N and Bagavathi, 2017 Modern Marketing, S.Chand & Company New Delhi.
4. Mamoria, D and Joshi, R.L., 2015 Principles and Practices of Marketing of Services, Kitab Mahal, New Delhi.

**Supplementary Readings:**

1. Mukesh Bhatia 2013 Strategic Brand Management a process of growing & strengthening brands Regal Publications
2. Kotler, P., and Armstrong. 2016. Principles of Marketing, Persons Education. New York
3. Sherlekar. 2010 Marketing Management Himalaya Publication House. Mumbai
4. Kadavekar, S. 2017. Marketing and Salesmanship, Dimond Publication. Pune.
5. Kotler, P., Lane, K., and Keller. 2017. Marketing Management, Pearson Education, New York

<b>SEMESTER: IV SEC: VII PART: IV</b>	<b>23UCOAS47: CLEARING AND FORWARDING IN EXPORT AND IMPORT</b>	<b>CREDIT: 2 HOURS: 2/W</b>
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<b>Learning Objectives:</b>	
<b>LO1:</b>	To educate the students how the clearing and forwarding agents acted in Ports
<b>LO2:</b>	To gain knowledge how the export documents are prepared by the exporter and these documents are handled by the shipping and forwarding agents
<b>LO3:</b>	To acquire knowledge in import documentation
<b>LO4:</b>	To know the how the frights are charged by the shipping and forwarding agents
<b>LO5:</b>	To understand the Risk in Export and Import
<b>Course Outcomes:</b>	
	After the successful completion of the course, the students will be able to:
<b>CO1:</b>	Explain the role of clearing agents in ports
<b>CO2:</b>	Discuss the export procedure and documentation
<b>CO3:</b>	Explain the import documentation procedure
<b>CO4:</b>	Equip Freight forwarding services
<b>CO5:</b>	Discuss the determinants of Risk Management

#### **Unit I: Introduction**

Introduction to clearing and forwarding – Role and importance of Clearing and Forwarding in International Trade- Logistics and Supply Chain Management- Roles and responsibilities of clearing and forwarding agents- Relevant legal and regulatory frame work-Documents required for clearing and forwarding

#### **Unit II: Export Procedure Documentation**

Documents required for export- Commercial Invoice-Packing list-Certificate of Origin -.GMP Certificate- Bill of Lading – Insurance – USFDA Registration Certificate- ISO 9000 certification - Export Licensing procedures and formalities- Pre-requisite of Export and Import- Negative list of Exports

#### **Unit III: Import Procedure Documentation**

Import Documentation – Import Licence under Advance Authorization- Customs Inspection, Examination and Audits – General Provisions regarding Import

#### **Unit IV: Fright forwarding and Transportation**

Fright forwarding services in import and export – Mode of Transport- Air,Sea- Freight rates-INCO terms – Packaging, labelling and cargo handling requirements

#### **Unit V: Risk Management**

Risk Assessment – Insurance coverage and claims – Methods of Export and Import Payments- Export Earning Foreign Currency – Letter of credit and international payments system- Managing trade related financial documents

### **Recent Trends in Clearing and Forwardin in Export and Import**

Faculty member will impart the knowledge on recent trends in Clearing and Forwarding in Export and Import to the students and these components will not cover in the examination.

#### **Text Books:**

1. Mahajan M.I, 2021, Export Policy, Procedure and Documentation, Snow white Publications, Mumbai
2. Natarajan L 2022, Import and Export Procedure (Import Management), Margham Publications, Chennai.
3. Rathor B.S and Rathor, J.S 2022, Export Marketing, Himalaya Publishing House, New Delhi.

#### **Supplementary Readings:**

1. Francis Cherunilam 2021, International Trade and Export Management, Himalaya Publishing House, New Delhi
2. Paras Ram , 2022, Nilkhil Garg Export : What, Where and How? Anupam Publishers, New Delhi
3. Hand Book of Export Import Procedures: Ministry of Commerce 2020-2025 Government of India Volume No:1 and 2
4. Mahajan M.I, 2022, Export Do it yourself, Snow white Publications, Mumbai
5. Mahajan M.I, 2022, Import Policy, Procedure and Documentation, Snow white Publications, Mumbai.

**THIRD YEAR – SEMESTER - V**

**CORE – IX: COST ACCOUNTING - I**

Subject Code	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
23UCOAC51	5				4	5	25	75	100
<b>Learning Objectives</b>									
<b>LO1</b>	To understand the various concepts of cost accounting.								
<b>LO2</b>	To prepare and reconcile Cost accounts.								
<b>LO3</b>	To gain knowledge regarding valuation methods of material.								
<b>LO4</b>	To familiarize with the different methods of calculating labour cost.								
<b>LO5</b>	To know the apportionment of Overheads.								
<b>Prerequisite: Should have studied Commerce in XII Std</b>									
Unit	Contents								No. of Hours
I	<b>Introduction of Cost Accounting</b> Definition-Nature and Scope – Principles of Cost Accounting – Cost Accounting and Financial Accounting - Cost Accounting Vs Management Accounting –Installation of Costing System –Classification of Costs– Cost Centre– Profit Centre.								15
II	<b>Cost Sheet and Methods of Costing</b> Preparation of Cost Sheet - Tenders & Quotations - Reconciliation of Cost and Financial Accounts –Unit Costing-Job Costing.								15
III	<b>Material Costing</b> Material Control – Meaning and Objectives – Purchase of Materials – EOQ –Stores Records – Reorder Levels – ABC Analysis - Issue of Materials – Methods of Issue – FIFO – LIFO – Base Stock Method – Specific Price Method – Simple and Weighted Average Method.								15
IV	<b>Labour Costing</b> Direct Labour and Indirect Labour – Time Keeping – Methods and Calculation of Wage Payments – Time Wages – Piece Wages – Incentives – Different Methods of Incentive Payments - Idle time–Overtime – Labour Turnover - Meaning, Causes and Measurement.								15
V	<b>Overheads Costing</b> Overheads – Definition – Classification – Allocation and Apportionment of Overheads – Basis of Apportionment – Primary and Secondary Distribution - Absorption of Overheads – Methods of absorption Preparation of Overheads Distribution Statement – Machine Hour Rate – Computation of Machine Hour Rate.								15
<b>TOTAL</b>								<b>75</b>	
<b>THEORY 20% &amp; PROBLEMS 80%</b>									
<b>Course Outcomes</b>									
<b>CO1</b>	Remember and recall the various concepts of cost accounting								
<b>CO2</b>	Demonstrate the preparation and reconciliation of cost sheet.								
<b>CO3</b>	Analyse the various valuation methods of issue of materials.								
<b>CO4</b>	Examine the different methods of calculating labour cost.								
<b>CO5</b>	Critically evaluate the apportionment of Overheads.								
<b>Textbooks</b>									
1	Jain S.P. and Narang K.L, Cost Accounting. Kalyani Publishers, New Delhi								

2	Khanna B.S., Pandey I.M., Ahuja G.K., and Arora M.N., Practical Costing, S. Chand & Co, New Delhi,
3	Dr.S.N. Maheswari, Principles of Cost Accounting, Sultan Chand Publications, New Delhi
4	T.S. Reddy and Y. Hari Prasad Reddy, Cost Accounting, Margham publications, Chennai
5	S.P. Iyengar, Cost Accounting, Sultan Chand Publications, New Delhi
<b>Reference Books</b>	
1	Polimeni, Cost Accounting: Concepts and Applications for Managerial Decision Making, 1991, McGraw–Hill, New York.
2	Jain S.P. and Narang K.L. Cost Accounting, Latest Edition.2013, Kalyani Publishers, New Delhi,
3	V.K.Saxena and C.D.Vashist, Cost Accounting, Sultan Chand publications, New Delhi
4	Murthy A &GurusamyS ,Cost Accounting, Vijay Nicole Imprints Pvt. Ltd. Chennai
5	Prasad.N.K and Prasad.V.K, Cost Accounting, Book Syndicate, Kolkata
<b>NOTE: Latest Edition of Textbooks May be Used</b>	
<b>Web Resources</b>	
1	<a href="https://study.com/learn/lesson/cost-accounting-principles-examples-what-is-cost-accounting.html">https://study.com/learn/lesson/cost-accounting-principles-examples-what-is-cost-accounting.html</a>
2	<a href="https://www.accountingtools.com/articles/what-is-material-costing.html">https://www.accountingtools.com/articles/what-is-material-costing.html</a>
3	<a href="https://www.freshbooks.com/hub/accounting/overhead-cost">https://www.freshbooks.com/hub/accounting/overhead-cost</a>

**MAPPING WITH PROGRAMME OUTCOMES  
AND PROGRAMME SPECIFIC OUTCOMES**

	PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
<b>CO1</b>	3	2	3	2	2	2	2	2	3	2	2
<b>CO2</b>	3	2	2	2	2	2	2	2	3	2	2
<b>CO3</b>	3	2	3	2	2	2	2	2	3	2	2
<b>CO4</b>	3	2	2	2	2	2	2	2	3	2	2
<b>CO5</b>	3	2	3	2	2	2	2	2	3	2	2
<b>TOTAL</b>	15	10	13	10	10	10	10	10	15	10	10
<b>AVERAGE</b>	3	2	2.6	2	2	2	2	2	3	2	2

**3 – Strong, 2- Medium, 1- Low**

**THIRD YEAR – SEMESTER - V**

**CORE – X: BANKING LAW AND PRACTICE**

Subject Code	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
23UCOA C52	5				4	5	25	75	100
<b>Learning Objectives</b>									
<b>LO1</b>	To help the students understand various provision of Banking Regulation Act 1949 applicable to banking companies including cooperative banks								
<b>LO2</b>	To trace the evolution of central bank concept and prevalent central banking system around the world and their roles and function								
<b>LO3</b>	To throw light on Central Bank in India, its formation, nationalizing its organization structure, role of bank to government, role in promoting agriculture and industry, role in financial inclusion								
<b>LO4</b>	To understand how capital fund of commercial banks, objectives and process of Asset securitization etc.								
<b>LO5</b>	To explore practical banking systems relationship of bankers and customers, crossing of cheques, endorsement etc.								
Unit	Contents								No. of Hours
I	<b>Introduction to Banking</b> History of Banking- Provisions of Banking Regulations Act 1949 - Components of Indian Banking - Indian Banking System-Phases of Development - Banking Structure in India – Public Sector Banks, Private Banks, Foreign Banks, RRB, UCB, Payment Banks and Small Finance Banks - Banking System – Branch Banking - Unit Banking - Universal Banking- Financial Inclusion								15
II	<b>Central Bank and Commercial Bank</b> Central Banking: Definition –Need - Principles- Central Banking Vs Commercial Banking - Functions of Central Bank – Credit Creation. Commercial Banking: Definition - Functions – Personal Banking – Corporate Banking – Digital banking – Core Banking System (CBS) - Role of Banks in Economic Development.								15
III	<b>Banking Practice</b> Types of Accounts CASA – Types of Deposits - Opening Bank Account- Jan Dhan Yojana - Account Statement vs Passbook vs e-statement - Banker Customer Relationship - Special Types of Customers – KYC norms. Loans & Advances –Lending Sources- Lending Principles-Types of Loans - classification of assets and income recognition / provisioning (NPA) – Repo Rate & Reverse Repo Rate - securities of lending-Factors influencing bank lending.								15



IV	<p><b>Negotiable Instruments Act</b> Negotiable Instruments – Meaning &amp; Definition – Characteristics -Types of negotiable instruments. Crossing of Cheques– Concept - Objectives – Types of Crossing - - Consequences of Non-Crossing.</p> <p>Endorsement - Meaning-Components-Kinds of Endorsements-Cheques payable to fictitious person Endorsement by legal representative –Negotiation bank-Effect of endorsement-Rules regarding Endorsement. Paying banker - Banker’s duty - Dishonouring of Cheques- Discharge by paying banks - Payments of a crossed cheque - Refusal of cheques Payment. Duties of Collecting Banker-Statutory protection under section 131-Collecting bankers’ duty –RBI instruction –Paying Banker Vs Collecting Banker- Customer Grievances-Grievance Redressal –Banking Ombudsman.</p>	15
V	<p><b>Digital Banking</b></p> <p>Meaning- Services - e-banking and financial services- Initiatives- Opportunities - Internet banking Vs Traditional Banking</p> <p>Mobile banking–Anywhere Banking-Any Time Banking- Electronic Mobile Wallets. ATM – Concept - Features - Types-. Electronic money-Meaning- Categories-Merits of e-money - National Electronic Funds Transfer (NEFT), RTGS, IMPS, UPI and Digital currency – Differences - Safety and Security in Digital Banking.</p>	15
<b>TOTAL</b>		<b>75</b>
<b>Course Outcomes</b>		
<b>CO1</b>	Aware of various provision of Banking Regulation Act 1949 applicable to banking companies including cooperative banks	
<b>CO2</b>	Analyse the evolution of Central Banking concept and prevalent Central Banking system in India and their roles and function	
<b>CO3</b>	Gain knowledge about the Central Bank in India, its formation, nationalizing its organization structure, role of bank to government, role in promoting agriculture and industry, role in financial inclusion	
<b>CO4</b>	Evaluate the role of capital fund of commercial banks, objectives and process of Asset securitization etc	
<b>CO5</b>	Define the practical banking systems relationship of bankers and customers, crossing of cheques, endorsement etc.	
<b>Textbooks</b>		
1	Gurusamy S, Banking Theory: Law and Practice, Vijay Nicole Publication, Chennai	
2	Muraleedharan, Modern Banking: Theory and Practice, Prentice Hall India Learning Private Ltd, New Delhi	
3	Gupta P.K. Gordon E.Banking and Insurance, Himalaya publication, Kolkata	
4	Gajendra,A Text on Banking Theory Law & Practice, Vrinda Publication, Delhi	
5	K P Kandasami, S Natarajan & Parameswaran, Banking Law and Practice, S Chand publication, New Delhi	
<b>Reference Books</b>		
1	B. Santhanam, Banking & Financial System, Margam Publication, Chennai	
2	KataitSanjay, Banking Theory and Practice, Lambert Academic Publishing,	
3	Henry Dunning Macleod, The Theory And Practice Of Banking, Hard Press Publishing, Old New Zealand	
4	William Amasa Scott, Money And Banking: An Introduction To The Study Of Modern Currencies, Kesinger publication, USA	
5	NektariosMichail, Money, Credit, and Crises: Understanding the Modern Banking System, Palgrave Macmillan, London	

<b>NOTE: Latest Edition of Textbooks May be Used</b>	
<b>Web Resources</b>	
1	<a href="https://www.rbi.org.in/">https://www.rbi.org.in/</a>
2	<a href="https://businessjargons.com/e-banking.html">https://businessjargons.com/e-banking.html</a>
3	<a href="https://www.wallstreetmojo.com/endorsement/">https://www.wallstreetmojo.com/endorsement/</a>

**MAPPING WITH PROGRAMME OUTCOMES  
AND PROGRAMME SPECIFIC OUTCOMES**

	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
<b>CO1</b>	3	2	3	2	3	2	2	2	3	3	2
<b>CO2</b>	3	2	2	2	3	2	2	2	3	3	2
<b>CO3</b>	3	2	3	2	3	2	2	2	3	3	2
<b>CO4</b>	3	2	2	2	3	2	2	2	3	3	2
<b>CO5</b>	3	2	3	2	3	2	2	2	3	3	2
<b>TOTAL</b>	15	10	13	10	15	10	10	10	15	15	10
<b>AVERAGE</b>	3	2	2.6	2	3	2	2	2	3	3	2

**3 – Strong, 2- Medium, 1- Low**

**THIRD YEAR – SEMESTER - V**

**CORE – XI: INCOME TAX LAW AND PRACTICE- I**

Subject Code	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
23UCOAC53	5				4	5	25	75	100
<b>Learning Objectives</b>									
<b>LO1</b>	To understand the basic concepts & definitions under the Income Tax Act,1961.								
<b>LO2</b>	To compute the residential status of an assessee and the incidence of tax.								
<b>LO3</b>	To compute income under the head salaries.								
<b>LO4</b>	To learn the concepts of Annual value, associated deductions and the calculation of income from House property.								
<b>LO5</b>	To compute the income from Business & Profession considering its basic principles & specific disallowances.								
Prerequisite: Should have studied Commerce in XII Std									
Unit	Contents								No. of Hours
	<b>Introduction to Income Tax</b>								
I	Introduction to Income Tax – History – Objectives of Taxation - Features of Income Tax – Meaning of Income – Types – Important Definitions Under the Income Tax Act –Types of Assessee – Income exempted under Section 10.								15
II	<b>Residential Status</b> Residential Status – Residential Status of an Individual – Company – HUF – Basic Conditions – Additional Conditions – Incidence of Tax and Residential Status – Problems on Residential Status and Incidence of Tax.								15
III	<b>Income from Salary</b> Salary Income - Definition – Allowances –Taxability - Perquisites – Kinds of Perquisites –Types of Provident Fund - Gratuity – Pension – Commutation of Pension – Deduction of Salary - Profits in Lieu of Salary - Computation of Salary Income .								15
IV	<b>Income from House Property</b> Income from House Property –Basis of Charge – Annual Value – Gross Annual Value, Net Annual Value - Let-out vs Deemed to be let out Self-Occupied Property – Deductions – Computation of Income from House Property.								15
V	<b>Profits and Gains from Business or Profession</b> Income from Business or Profession – Allowable Expenses – Expenses Disallowed - General Deductions – Depreciation – Undisclosed Income & Investments, Unexplained expenditure (Sec 69A, 69B, 69C, 69D) – Compulsory Maintenance of Books of Accounts – Audit of Accounts of Certain Persons – Special Provisions for Computing Incomes on Estimated Basis (Deemed Income) – Computation of Income from Business or Profession.								15
	<b>TOTAL</b>								<b>75</b>
<b>Course Outcomes</b>									
<b>THEORY 20% &amp; PROBLEMS 80%</b>									
<b>CO1</b>	Demonstrate the understanding of the basic concepts and definitions under the Income Tax Act.								

<b>CO2</b>	Assess the residential status of an assessee& the incidence of tax.
<b>CO3</b>	Compute income of an individual under the head salaries.
<b>CO4</b>	Ability to compute income from house property.
<b>CO5</b>	Evaluate income from a business carried on or from the practice of a Profession.
<b>Textbooks</b>	
1	V.P. Gaur, Narang, Puja Gaur and Rajeev Puri - Income Tax Law and Practice, Kalyani Publishers, New Delhi.
2	T.S. Reddy and Hariprasad Reddy, Income Tax Law and Practice, Margham Publications, Chennai.
3	Dinkar Pagare, Income Tax Law and Practice, Sultan & Chand Sons, New Delhi.
4	H.C. Mehrotra, Dr.Goyal S.P, Income Tax Law and Accounts, Sahitya Bhavan Publications, Agra.
5	T. Srinivasan – Income Tax & Practice –Vijay Nicole Imprints Private Limited , Chennai.
<b>Reference Books</b>	
1	Hariharan N, Income Tax Law & Practice, Vijay Nicole Imprints Pvt. Ltd. Chennai
2	Bhagwati Prasad, Income Tax Law and Practice, Vishwa Prakashan. New Delhi.
3	Vinod K. Singhania, Students Guide to Income Tax.,U.K.Bharghava Taxman.
4	Dr.Vinod K Singhania, Dr. Monica Singhania, Taxmann's Students' Guide to Income Tax, New Delhi.
5	Mittal Preethi Rani and Bansal Anshika, Income Tax Law and Practice, Sultan & Chand Sons, New Delhi.
<b>NOTE: Latest Edition of Textbooks May be Used</b>	
<b>Web Resources</b>	
1	<a href="https://cleartax.in/s/residential-status/">https://cleartax.in/s/residential-status/</a>
2	<a href="https://www.legalraasta.com/itr/income-from-salary/">https://www.legalraasta.com/itr/income-from-salary/</a>
3	<a href="https://taxguru.in/income-tax/income-house-properties.html">https://taxguru.in/income-tax/income-house-properties.html</a>

**MAPPING WITH PROGRAMME OUTCOMES  
AND PROGRAMME SPECIFIC OUTCOMES**

	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
<b>CO1</b>	3	2	3	2	3	2	2	2	3	3	2
<b>CO2</b>	3	2	2	2	2	2	2	2	3	2	2
<b>CO3</b>	3	3	3	2	3	2	2	2	3	3	2
<b>CO4</b>	3	2	2	2	2	2	2	2	3	3	2
<b>CO5</b>	3	3	3	2	3	2	2	2	3	2	2
<b>TOTAL</b>	15	12	13	10	13	10	10	10	15	13	10
<b>AVERAGE</b>	3	2.2	2.6	2	2.6	2	2	2	3	2.6	2

**3 – Strong, 2- Medium, 1- Low**

**THIRD YEAR – SEMESTER – V**

**CORE –XII : PROJECT WITH VIVA-VOCE**

Subject Code	Ls	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
23UCOAD54	5				4	5	25	75	100

(Refer to the Regulations)

**THIRD YEAR – SEMESTER – V**  
**ELECTIVE : FINANCIAL MANAGEMENT**

Subject Code	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
23UCOACE55-1	4				3	4	25	75	100
<b>Learning Objectives</b>									
<b>LO1</b>	To introduce the concept of financial management.								
<b>LO2</b>	To learn the capital structure theories.								
<b>LO3</b>	To gain knowledge about techniques in capital budgeting								
<b>LO4</b>	To learn about dividend payment models.								
<b>LO5</b>	To understand the needs and calculation of working capital in an organization.								
<b>Prerequisites: Should have studied Commerce in XII Std</b>									
Unit	Contents								No. of Hours
I	<b>Introduction</b> Meaning and Objectives of Financial Management – Functions of Financial Management. Finance - Sources of Finance-Role of Financial Manager - Financial Goals- Profit maximization Vs. Wealth Maximization – Concept of Time Value Money –Risk and Return – Components of Financial Management.								12
II	<b>Financial Decision</b> Capital Structure – Definition - Meaning- Theories- Factors determining Capital Structure – Various approaches of Capital structure Cost of Capital – Meaning – Factors determining cost of capital - Methods - Cost of Equity Capital – Cost of Preference Capital – Cost of Debt – Cost of Retained Earnings – Weighted Average (or) Composite Cost of Capital (WACC) Leverage – Concept – Operating and Financial Leverage								12
III	<b>Investment Decision</b> Capital Budgeting - Meaning - Process – Cash Flow Estimation Capital Budgeting Appraisal Methods: Traditional Methods - Payback Period – Accounting Rate of Return (ARR). Discounted Cash-flow Methods: Net Present Value (NPV) – Internal Rate of Return – Profitability Index.								12
IV	<b>Dividend Decision</b> Meaning – Dividend Policies – Factors Affecting Dividend Payment – Provisions on Dividend Payment in Company Law – Dividend Models - Walter’s Model - Gordon’s Model – M&M Model.								12
V	<b>Working Capital Decision</b> Working Capital - Meaning and Importance – Classification - Working Capital Cycle - Factors Influencing Working Capital – Determining Working Capital - Management of Current Assets: Inventories, Accounts Receivables and Cash.								12
<b>TOTAL</b>								60	

<b>THEORY 40% &amp; PROBLEMS 60%</b>	
<b>Course Outcomes</b>	
<b>CO1</b>	Recall the concepts in financial management.
<b>CO2</b>	Apply the various capital structure theories.
<b>CO3</b>	Apply capital budgeting techniques to evaluate investment proposals.
<b>CO4</b>	Determine dividend pay-outs.
<b>CO5</b>	Estimate the working capital of an organization.
<b>Textbooks</b>	
1	R.K. Sharma, Shashi K Gupta, Financial Management, Kalyani Publications, New Delhi.
2	M.Y. Khan and P.K.Jain, Financial Management, McGraw Hill Education, Noida.
3	I.M. Pandey, Financial Management, Vikas Publications, Noida.
4	Dr.S.N. Maheshwari, Elements of Financial Management, Sultan Chand & Sons, New Delhi.
5	Dr.Kulkarni and Dr. Sathya Prasad, Financial Management, Himalaya Publishing House, Mumbai.
<b>Reference Books</b>	
1	Prasana Chandra, Financial Management, Tata McGraw Hill, NewDelhi.
2	I.M. Pandey, Financial Management, Vikas Publishing, Noida.
3	Khan & Jain, Financial Management, Sultan Chand & Sons, New Delhi.
4.	A.Murthy, Financial Management, ,Margham Publications, Chennai.
5.	J. Srinivasan and P. Periyasamy, Financial Management, Vijay Nicole Publishers, Chennai.
<b>NOTE: Latest Edition of Textbooks May be Used</b>	
<b>Web Resources</b>	
1	<a href="https://efinancemanagement.com/financial-management/types-of-financial-decisions">https://efinancemanagement.com/financial-management/types-of-financial-decisions</a>
2	<a href="https://efinancemanagement.com/dividend-decisions">https://efinancemanagement.com/dividend-decisions</a>
3	<a href="https://www.investopedia.com/terms/w/workingcapital.asp">https://www.investopedia.com/terms/w/workingcapital.asp</a>

**MAPPING WITH PROGRAMME OUTCOMES  
AND PROGRAMME SPECIFIC OUTCOMES**

	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
<b>CO1</b>	3	2	3	2	3	2	3	3	3	2	2
<b>CO2</b>	3	2	2	2	3	2	2	2	3	2	3
<b>CO3</b>	3	3	3	2	3	2	3	3	3	2	2
<b>CO4</b>	3	2	2	2	3	2	2	2	3	2	2
<b>CO5</b>	3	3	3	2	3	2	3	3	3	2	2
<b>TOTAL</b>	15	12	13	10	15	10	13	13	15	10	11
<b>AVERAGE</b>	3	2.2	2.6	2	3	2	2.6	2.6	3	2	2.1

**3 – Strong, 2- Medium, 1- Low**

**THIRD YEAR – SEMESTER - V**

**ELECTIVE : INDIRECT TAXATION**

Subject Code	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
23UCOAE55-2	4				3	4	25	75	100
<b>Learning Objectives</b>									
<b>LO1</b>	To get introduced to indirect taxes								
<b>LO2</b>	To have an overview of Indirect taxes								
<b>LO3</b>	To be familiar the CGST and IGST Act								
<b>LO4</b>	To learn procedures under GST								
<b>LO5</b>	To gain knowledge about Customs Duty.								
<b>Prerequisite: Should have studied Commerce in XII Std</b>									
Unit	Contents								No. of Hours
I	<b>Introduction to Indirect Tax</b> Concept and Features of Indirect Taxes - Difference between Direct and Indirect Taxes –Special Feature of Indirect Tax Levies – Contribution to Government Revenues – Role of Indirect Taxation – Merits and Demerits of Indirect Taxation – Reforms in Indirect Taxation – Introduction to Foreign Trade Policy (FTP) 2023								12
II	<b>An Overview of Goods &amp; Service Tax (GST)</b> Introduction of Goods and Service Tax in India— Kelkar Committee - Constitutional Amendment - Goods and Service Tax: Concepts, Meaning, Significance, Features and Benefits - Important GST Common Portals – Taxes and Duties not Subsumed in GST – Rates of GST in India - Role of GSTN in Implementation of GST - Challenges in Implementation of GST.								12
III	<b>CGST &amp; IGST Act 2017</b> Supply – Meaning – Classification – Time of Supply – Valuation – Voluntary – Compulsory – Input Tax Credit – Eligibility – Reversal – Reverse charge Mechanism – E-Way Bill - Various Provisions Regarding E-way Bill in GST – IGST Act - Export and Import of Goods and Services– Inter State Vs Intra State Supply – Place of Supply.– Anti Profiteering Rules – Doctrine of Unjust Enrichment								12
IV	<b>Procedures under GST</b> Registration under GST Law, Tax Invoice Credit and Debit Notes, Different GST Returns, Electronic Liability Ledger, Electronic Credit Ledger, Electronic Cash Ledger, Different Assessment under GST, Interest Penalty under GST, Mechanism of Tax Deducted at Source (TDS) and Tax Collected at Source (TCS), Audit under GST.								12
V	<b>Customs Act 1962</b> Custom Duty: Concepts; Territorial Waters - High Seas - Levy of Customs Duty, Types of Custom Duties – Valuation - Baggage Rules & Exemptions.								12
<b>TOTAL</b>								<b>60</b>	
<b>Course Outcomes</b>									
<b>CO1</b>	Acquaintance with Indirect tax laws								
<b>CO2</b>	Exposed to the overview of GST.								
<b>CO3</b>	Apply provisions of CGST and IGST								
<b>CO4</b>	Summarise procedures of GST								



<b>CO5</b>	Discuss aspects of Customs Duty in India
<b>Textbooks</b>	
1	Vinod K Singhania, Indirect Taxes, Taxman's Publications, New Delhi.
2	Dr. H.C. Mehrotra & Prof. V.P Agarwal, Goods and Services Tax (GST), Sahitya Bhawan Publications, Agra.
3	Rajat Mohan, Goods & Services Tax, Bharat Law Publications House, New Delhi.
4	CA. Pushpendra Sisodia, Indirect Tax Laws, Bharat Publications, New Delhi.
<b>Reference Books</b>	
1	V.S.Datey, All About GST, Taxmann Publications, New Delhi.
2	T.S. Reddy & Y.Hariprasad Reddy, Business Taxation, Margham Publications, Chennai.

3	Study Material on GST - The Institute of Chartered Accountants of India /The Institute of Cost Accountants of India, Chennai.
4	Guidance material on GST issued by CBIC, Government of India.
<b>NOTE: Latest Edition of Textbooks May be Used</b>	
<b>Web Resources</b>	
1	<a href="https://iimskills.com/goods-and-services-tax/#:~:text=GST-%20an%20acronym%20for%20Goods%20and%20Services%20Tax-,etc.%2C%20to%20stand%20as%20a%20unified%20tax%20regime.">https://iimskills.com/goods-and-services-tax/#:~:text=GST-%20an%20acronym%20for%20Goods%20and%20Services%20Tax-,etc.%2C%20to%20stand%20as%20a%20unified%20tax%20regime.</a>
2	<a href="https://tax2win.in/guide/gst-procedure">https://tax2win.in/guide/gst-procedure</a>
3	<a href="https://www.cbic.gov.in/htdocs-cbec/customs/cs-act/cs-act-ch9">https://www.cbic.gov.in/htdocs-cbec/customs/cs-act/cs-act-ch9</a>

**MAPPING WITH PROGRAMME OUTCOMES  
AND PROGRAMME SPECIFIC OUTCOMES**

	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
<b>CO1</b>	3	2	3	2	3	2	3	3	3	2	2
<b>CO2</b>	3	2	2	2	2	2	2	2	3	2	3
<b>CO3</b>	3	3	3	2	3	2	3	3	3	2	2
<b>CO4</b>	3	2	2	2	2	2	2	2	3	2	2
<b>CO5</b>	3	3	3	2	3	2	3	3	3	2	3
<b>TOTAL</b>	15	12	13	10	13	10	13	13	15	10	12
<b>AVERAGE</b>	3	2.2	2.6	2	2.6	2	2.6	2.6	3	2	2.4

**3 – Strong, 2- Medium, 1- Low**

**THIRD YEAR – SEMESTER - V**

**ELECTIVE –: SOFTWARE ENGINEERING AND UML LAB**

Subject Code	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
23UCOAE56-1	2		2		3	4	25	75	100
<b>Learning Objectives</b>									
LO1	To introduce the software development life cycles								
LO2	To introduce concepts related to structured and objected oriented analysis & design co								
LO3	To provide an insight into UML and software testing techniques								
LO4	To get familiarized to the usage of UML tool kit.								
LO5	To develop the ability to verify and validate their designs								
<b>Prerequisite: Should have studied Commerce in XII Std</b>									
Unit	Contents								No. of Hours
I	Introduction – Evolution – Software Development projects – Emergence of Software Engineering .Software Life cycle models – Waterfall model – Rapid Application Development – Agile Model – Spiral Model								
II	Requirement Analysis and Specification – Gathering and Analysis – SRS – Formal System Specification								
III	Software Design – Overview – Characteristics – Cohesion & Coupling – Layered design – Approaches Function Oriented Design – Structured Analysis – DFD – Structured Design – Detailed design								
IV	Object Modeling using UML – OO concepts – UML – Diagrams – Use case, Class, Interaction, Activity, State Chart – Postscript								
V	Coding & Testing – coding – Review – Documentation – Testing – Black-box, White-box, Integration, OO Testing, Smoke testing.								
	<b>TOTAL</b>								
<b>Course Outcomes</b>									
CO1	The students should be able to specify software requirements, design the software using tools								
CO2	To write test cases using different testing techniques.								
CO3	Students must be able to analyse and design the problem at hand.								

<b>CO4</b>	Students should be able to use UML tools for the designing the software and test the correctness and soundness of their software through testing tools.
<b>Textbooks</b>	
1	Rajib Mall, “Fundamentals of Software Engineering”, PHI 2018, 5th Edition.
2	Roger S. Pressman, “Software Engineering - A Practitioner’s Approach”, McGraw Hill 2010, 7thEdition.
<b>Reference Books</b>	
1	Pankaj Jalote, “An Integrated Approach to Software Engineering”, Narosa Publishing House 2011,3rd Edition.
<b>NOTE: Latest Edition of Textbooks May be Used</b>	
<b>Web Resources</b>	
1	NPTEL online course – Software Engineering - <a href="https://nptel.ac.in/courses/106105182/">https://nptel.ac.in/courses/106105182/</a>

<b>UML Lab</b> <b>Common for both Electives in semester V</b>	<b>Core - Core -S5EC1/2L</b>
<b>Credits 4</b>	<b>Lecture Hours:5 per week</b>
<p><b>Learning Objectives:</b> (for teachers: what they have to do in the class/lab/field)</p> <ul style="list-style-type: none"> <li>• To get familiarized to the usage of UML tool kit.</li> <li>• To understand the requirements of the software and to map them appropriately to subsequent phases of the software development</li> <li>• To develop the ability to verify and validate their designs</li> </ul>	
<p><b>Course Outcomes:</b> (for students: To know what they are going to learn)</p> <p>CO1: Students must be able to analyses and design the problem at hand. CO2: Students should be able to use UML tools for the designing the software and test the correct ness and soundness of their software through testing tools.</p>	

<b>LIST OF PRACTICALS</b>
Using UML tools produce analysis and design models for a. Library Management System b. Automatic Teller Machine c. Student Information Management d. Matrimony Service e. Stock Management System

Extended Professional Component	Questions related to the above topics, from various competitive examinations UPSC / TRB / NET / UGC – CSIR / GATE / TNPSC / others to be solved (To be discussed during the Tutorial hour)
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Skills acquired from the Course	Knowledge, Problem Solving, Analytical ability, Professional Competency, Professional Communication and Transferrable Skill
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Extended Professional Component	Questions related to the above topics, from various competitive examinations UPSC / TRB / NET / UGC – CSIR / GATE / TNPSC / others to be solved (To be discussed during the Tutorial hour)
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Skills acquired from the Course	Knowledge, Problem Solving, Analytical ability, Professional Competency, Professional Communication and Transferrable Skill
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<p><b>Learning Resources:</b></p> <p><b>Recommended Texts</b></p> <ol style="list-style-type: none"> <li>1. Roger D. Peng,” R Programming for Data Science “, 2012</li> <li>2. Norman Matloff,”The Art of R Programming- A Tour of Statistical Software Design”, 2011</li> </ol> <p><b>Reference Books</b></p> <ol style="list-style-type: none"> <li>1. Garrett Golemund, Hadley Wickham,” Hands-On Programming with R: Write Your Own Functions and Simulations” , 1st Edition, 2014</li> <li>2. Venables , W.N.,and Ripley,”S programming“, Springer, 2000.</li> </ol>	
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**MAPPING WITH PROGRAMME OUTCOMES  
AND PROGRAMME SPECIFIC OUTCOMES**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
<b>CO1</b>	3	2	3	2	3	2	3	3	3	2	2
<b>CO2</b>	3	2	2	2	2	2	2	2	3	2	3
<b>CO3</b>	3	3	3	2	3	2	3	3	3	2	2
<b>CO4</b>	3	2	2	2	2	2	2	2	3	2	2
<b>CO5</b>	3	3	3	2	3	2	3	3	3	2	3
<b>TOTAL</b>	15	12	13	10	13	10	13	13	15	10	12
<b>AVERAGE</b>	3	2.2	2.6	2	2.6	2	2.6	2.6	3	2	2.4

**3 – Strong, 2- Medium, 1- Low**

**THIRD YEAR – SEMESTER – V**

**ELECTIVE: OBJECT ORIENTED ANALYSIS AND DESIGN (UML LAB )**

Subject Code	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
23UCOAE56-2	2		2		3	4	25	75	100
<b>Learning Objectives</b>									
<b>LO1</b>	To make aware of the software requirements, design the software using tools								
<b>LO2</b>	To be acquainted with the writing of test cases using different testing techniques.								
<b>LO3</b>	To get familiarized to the usage of UML tool kit.								
<b>LO4</b>	To understand the requirements of the software and to map them appropriately to subsequent phases of the software development								
<b>LO5</b>	To develop the ability to verify and validate their designs								
<b>Prerequisite: Should have studied Commerce in XII Std</b>									
Unit	Contents								No. of Hours
I	Object Orientation – System development – Review of objects - inheritance - Object relationship – Dynamic binding – OOSD life cycle – Process – Analysis – Design – prototyping – Implementation – Testing- Overview of Methodologies								
II	Rumbaugh methodology, OMT – Booch methodology, Jacobson methodology – patterns – Unified approach – UML – Class diagram – Dynamic modelling.								
III	Introduction - UML – Meta model - Analysis and design - more information. Outline Development Process: Overview of the process-Inception - Elaboration- construction- refactoring patterns transmission-iterative development -use cases.								
IV	OO Design axioms – Class visibility – refining attributes – Methods –Access layer – OODBMS – Table – class mapping view layer								
V	Interaction diagram-package diagram-state diagram-activity diagram-deployment diagram - UML and programming								
<b>TOTAL</b>									
<b>Course Outcomes</b>									
<b>CO1</b>	The students should be able to specify software requirements, design the software using tools								

<b>CO2</b>	To write test cases using different testing techniques.
<b>CO3</b>	Students must be able to analyses and design the problem at hand.
<b>CO4</b>	Students should be able to use UML tools for the designing the software and test the correctness and soundness of their software through testing tools.
<b>Textbooks</b>	
1	Ali Bahrami, "Object Oriented System Development", McGraw-Hill International Edition 2017.
2	Martin Fowler, Kendall Scott, "UML Distilled", Addison Wesley
3	Eriksson, "UML Tool Kit", Addison Wesley
<b>Reference Books</b>	
1	Booch G., "Object oriented analysis and design", Addison- Wesley Publishing Company 3 rd edition.
2	Rambaugh J, Blaha.M. Premeriani, W., Eddy F and Loresen W., "ObjectOrientedModeling and Design", PHI
<b>NOTE: Latest Edition of Textbooks May be Used</b>	

<b>UML Lab</b> <b>Common for both Electives in semester V</b>	<b>Core - Core -S5EC1/2L</b>
<b>Credits 4</b>	<b>Lecture Hours:5 per week</b>
<p><b>Learning Objectives:</b> (for teachers: what they have to do in the class/lab/field)</p> <ul style="list-style-type: none"> <li>• To get familiarized to the usage of UML tool kit.</li> <li>• To understand the requirements of the software and to map them appropriately to subsequent phases of the software development</li> <li>• To develop the ability to verify and validate their designs</li> </ul>	
<p><b>Course Outcomes:</b> (for students: To know what they are going to learn)</p> <p>CO1: Students must be able to analyse and design the problem at hand.  CO2: Students should be able to use UML tools for the designing the software and test the correct ness and soundness of their software through testing tools.</p>	

<b>LIST OF PRACTICALS</b>
Using UML tools produce analysis and design models for a. Library Management System b. Automatic Teller Machine c. Student Information Management d. Matrimony Service e. Stock Management System

Extended Professional Component	Questions related to the above topics, from various competitive examinations UPSC / TRB / NET / UGC – CSIR / GATE / TNPSC / others to be solved (To be discussed during the Tutorial hour)
Skills acquired from the Course	Knowledge, Problem Solving, Analytical ability, Professional Competency, Professional Communication and Transferrable Skill

Extended Professional Component	Questions related to the above topics, from various competitive examinations UPSC / TRB / NET / UGC – CSIR / GATE / TNPSC / others to be solved (To be discussed during the Tutorial hour)
Skills acquired from the Course	Knowledge, Problem Solving, Analytical ability, Professional Competency, Professional Communication and Transferrable Skill

**Learning Resources:**

**Recommended Texts**

3. Roger D. Peng, "R Programming for Data Science", 2012
4. Norman Matloff, "The Art of R Programming- A Tour of Statistical Software Design", 2011

**Reference Books**

3. Garrett Golemund, Hadley Wickham, "Hands-On Programming with R: Write Your Own Functions and Simulations", 1st Edition, 2014
4. Venables, W.N., and Ripley, "S programming", Springer, 2000.

**MAPPING WITH PROGRAMME OUTCOMES  
AND PROGRAMME SPECIFIC OUTCOMES**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
<b>CO1</b>	3	3	3	2	3	3	3	3	3	2	2
<b>CO2</b>	3	3	3	2	2	3	2	2	3	2	3
<b>CO3</b>	3	3	3	2	3	3	3	3	3	2	2
<b>CO4</b>	3	3	3	2	2	3	2	2	3	2	2
<b>CO5</b>	3	3	3	2	3	3	3	3	3	2	3
<b>TOTAL</b>	15	15	15	10	13	15	13	13	15	10	12
<b>AVERAGE</b>	3	3	3	2	2.6	3	2.6	2.6	3	2	2.4

**3 – Strong, 2- Medium, 1- Low**

**PART IV: SUMMER INTERNSHIP**

Subject Code	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
23UCOAI58					2	-	25	75	100

**(Refer to the Regulations)**



**THIRD YEAR – SEMESTER - VI**

**CORE –XIII: COST ACCOUNTING - II**

Subject Code	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
23UCOAC61	6				4	6	25	75	100
<b>Learning Objectives</b>									
LO1	To understand the standards in Cost Accounting								
LO2	To know the concepts of contract costing.								
LO3	To be familiar with the concept of process costing.								
LO4	To learn about operation costing.								
LO5	To gain insights into standard costing.								
<b>Prerequisite: Should have studied Cost Accounting in V Sem</b>									
Unit	Contents								No. of Hours
I	<b>Cost Accounting Standards</b> An Introduction to CAS – Purpose of CAS – Advantages of CAS – Difference between CAS and FAR Regulations – Different Degrees of CAS Coverage – Cost Accounting Standards - Responsibility Accounting and Divisional Performance Measurement.								18
II	<b>Job Costing, Batch Costing and Contract Costing</b> Definitions - Features - A Comparison - Calculation of Profit on Contracts – Cost Plus Contract - Preparation of Contract A/c.								18
III	<b>Process Costing</b> Process Costing – Meaning – Features of Process Costing – Application of Process Costing – Fundamental Principles of Process Costing – Preparation of Process Accounts - Treatment of Loss and Gain : Normal and Abnormal Loss - Abnormal Gain - Concept of Equivalent Production - Joint Products and By Products.								18
IV	<b>Operation Costing</b> Operation Costing – Meaning – Preparation of Operating Cost Sheet – Transport Costing – Power Supply Costing–Hospital Costing–Simple Problems.								18
V	<b>Standard Costing and Variance Analysis</b> Definition – Objectives – Advantages – Standard Cost and Estimated Cost – Installation of Standard Costing System – Variance Analysis – Material, Labour, Overhead, and Sales Variances – Calculation of Variances.								18
	<b>TOTAL</b>								<b>90</b>
<b>THEORY 20% &amp; PROBLEMS 80%</b>									
<b>Course Outcomes</b>									
CO1	Remember and recall standards in cost accounting								
CO2	Apply the knowledge in contract costing								
CO3	Analyze and assimilate concepts in process costing								
CO4	Understand various bases of classification cost and prepare operating cost statement.								
CO5	Set up standards and analyse variances.								
<b>Textbooks</b>									
1	Jain S.P. and Narang K.L. Cost Accounting. Kalyani Publishers. New Delhi.								
2	Khanna B.S., Pandey I.M., Ahuja G.K., and Arora M.N., Practical Costing, S Chand & Co, New Delhi.								

3	Dr.S.N. Maheswari, Principles of Cost Accounting, Sultan Chand publications, New Delhi.
4	T.S. Reddy and Y. Hari Prasad Reddy, Cost Accounting, Margham publications, Chennai.
5	S.P. Iyengar, Cost Accounting, Sultan Chand Publications, New Delhi.
<b>Reference Books</b>	
1	Polimeni, Cost Accounting: Concepts and Applications for Managerial Decision Making, New York, McGraw–Hill, Noida.
2	Jain S.P. and Narang K.L. Cost Accounting, Kalyani Publishers, New Delhi.
3	V.K.Saxena and C.D. Vashist, Cost Accounting, Sultan Chand publications, New Delhi.
4	Murthy A &Gurusamy S, Cost Accounting, Vijay Nicole Imprints Pvt. Ltd. Chennai.
5	Prasad. N.K and Prasad.V.K, Cost Accounting, Book Syndicate, Bangladesh.
<b>NOTE: Latest Edition of Textbooks May be Used</b>	
<b>Web Resources</b>	
1	<a href="https://www.economicdiscussion.net/cost-accounting/contract-costing/32597">https://www.economicdiscussion.net/cost-accounting/contract-costing/32597</a>
2	<a href="https://www.wallstreetmojo.com/process-costing/">https://www.wallstreetmojo.com/process-costing/</a>
3	<a href="https://www.accountingnotes.net/cost-accounting/operating-costing/17755">https://www.accountingnotes.net/cost-accounting/operating-costing/17755</a>

**MAPPING WITH PROGRAMME OUTCOMES  
AND PROGRAMME SPECIFIC OUTCOMES**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
<b>CO1</b>	3	3	3	2	3	3	3	3	3	2	2
<b>CO2</b>	3	3	3	2	2	3	2	2	3	2	3
<b>CO3</b>	3	3	3	2	3	3	3	3	3	2	2
<b>CO4</b>	3	3	3	2	2	3	2	2	3	2	2
<b>CO5</b>	3	3	3	2	3	3	3	3	3	2	3
<b>TOTAL</b>	15	15	15	10	13	15	13	13	15	10	12
<b>AVERAGE</b>	3	3	3	2	2.6	3	2.6	2.6	3	2	2.4

**3 – Strong, 2- Medium, 1- Low**

**THIRD YEAR – SEMESTER – VI**

**CORE – XIV: MANAGEMENT ACCOUNTING**

Subject Code	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
23UCOAC62	6				4	6	25	75	100
<b>Learning Objectives</b>									
<b>LO1</b>	To understand basics management accounting								
<b>LO2</b>	To know the aspects of Financial Statement Analysis								
<b>LO3</b>	To familiarize with fund flow and cash flow analysis								
<b>LO4</b>	To learn about budgetary control								
<b>LO5</b>	To gain insights into marginal costing.								
<b>Prerequisite: Should have studied Financial Accounting in I Semester.</b>									
Unit	Contents								No. of Hours
I	<b>Introduction to Management Accounting</b> Management Accounting – Meaning – Scope – Importance- Limitations - Management Accounting Vs Cost Accounting – Management Accounting Vs Financial Accounting. Analysis and Interpretation of Financial Statements – Nature and Significance – Types of Financial Analysis – Tools of Analysis – Comparative Statements – Common Size Statement – Trend Analysis.								18
II	<b>Ratio Analysis</b> Ratio Analysis: Meaning – Advantages – Limitations – Types of Ratios – Liquidity Ratios – Profitability Ratios -Turnover Ratios –Solvency Ratios – Leverage Ratios - Preparation of Financial Statements from Ratios.								18
III	<b>Funds Flow &amp; Cash Flow Analysis</b> Introduction, Meaning of Funds Flow Statement-Ascertainment of Flow of Funds - Schedule of Changes in Working Capital-Adjusted Profit and Loss Account - Preparation of Funds Flow Statement. <b>Cash Flow Statement:</b> Meaning – Advantages – Limitations – Preparation of Cash Flow Statement as per AS 3 –Cash Flow from Operating, Financing and Investing activities								18
IV	<b>Budget and Budgetary Control</b> Meaning – Preparation of Various Budgets – Cash Budget - Flexible Budget– Production Budget – Sales Budget – Master Budget – Budgetary Control – Benefits								18
V	<b>Marginal Costing:</b> Meaning - Features – Marginal Costing vs Absorption Costing - Fixed Cost, Variable Cost and Semi Variable Cost- Contribution- Marginal Cost Equation- P/V Ratio - Break Even Point - Margin of Safety – Cost- Volume Profits Analysis. Decision Making: Selection of a Product Mix – Make or Buy Decision – Discontinuance of a product line – Change or Status quo – Limiting Factor or Key Factor.								18
<b>TOTAL</b>								<b>90</b>	

<b>THEORY 20% &amp; PROBLEMS 80%</b>	
<b>CO</b>	<b>Course Outcomes</b>
<b>CO1</b>	Remember and recall basics in management accounting
<b>CO2</b>	Apply the knowledge of preparation of Financial Statements
<b>CO3</b>	Analyse the concepts relating to fund flow and cash flow
<b>CO4</b>	Evaluate techniques of budgetary control
<b>CO5</b>	Formulate criteria for decision making using principles of marginal costing.
<b>Textbooks</b>	
1	Jain S.P. & Narang K.L. (2018) Cost and Management Accounting, Kalyani Publications,
2	Rds. Maheswari, Cost and Management Accounting, Sultan Chand Sons Publications, New Delhi.
3	Sharma and Shashi K. Gupta, Management Accounting, Kalyani Publishers, Chennai.
4	Jenitra L Mervin ,Daslton L Cecil, Management Accounting, Lerantec Press, Chennai.
5	T.S.Reddy& Y. Hari Prasad Reddy, Management Accounting, MarghamPublications,Chennai.
<b>Reference Books</b>	
1	Chadwick – The Essence of Management Accounting, Financial Times Publications, England.
2	Charles T.Horngren and Gary N. Sundem–Introduction to Management Accounting, Pearson, Chennai.
3	Murthy A and GurusamyS ,Management Accounting- Theory &Practice, Vijay Nicole Imprints Pvt. Ltd .Chennai.
4	Hansen - Mowen, Cost Management Accounting and Control, South Western College, India.
5	N.P. Srinivasan, Management Accounting, New Age publishers, Chennai.
<b>NOTE: Latest Edition of Textbooks May be Used</b>	
<b>Web Resources</b>	
1	<a href="https://www.accountingnotes.net/companies/fund-flow-analysis/fund-flow-analysis-accounting/13300">https://www.accountingnotes.net/companies/fund-flow-analysis/fund-flow-analysis-accounting/13300</a>
2	<a href="https://accountingshare.com/budgetary-control/">https://accountingshare.com/budgetary-control/</a>
3	<a href="https://www.investopedia.com/terms/m/marginalcostofproduction.asp">https://www.investopedia.com/terms/m/marginalcostofproduction.asp</a>

**MAPPING WITH PROGRAMME OUTCOMES  
AND PROGRAMME SPECIFIC OUTCOMES**

	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
<b>CO1</b>	3	2	3	2	3	2	3	3	3	2	2
<b>CO2</b>	3	2	2	2	3	2	2	2	3	2	3
<b>CO3</b>	3	2	3	2	3	2	3	3	3	2	2
<b>CO4</b>	3	2	2	2	3	2	2	2	3	2	2
<b>CO5</b>	3	3	3	2	3	2	3	3	3	2	3
<b>TOTAL</b>	15	11	13	10	15	10	13	13	15	10	12
<b>AVERAGE</b>	3	2.1	2.6	2	2	2	2.6	2.6	3	2	2.4

**3 – Strong, 2- Medium, 1- Low**

**THIRD YEAR – SEMESTER - VI**

**CORE – XV: INCOME TAX LAW AND PRACTICE - II**

Subject Code	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
23UCOAC63	6				4	6	25	75	100
<b>Learning Objectives</b>									
<b>LO1</b>	To understand provisions relating to capital gains								
<b>LO2</b>	To know the provisions for computation of income from other sources.								
<b>LO3</b>	To familiarize law relating to set off and carry forward of losses and deductions from Gross Total Income.								
<b>LO4</b>	To learn about assessment of individuals								
<b>LO5</b>	To gain knowledge about assessment procedures.								
<b>Prerequisite: Should have studied Financial Accounting in I stSem</b>									
Unit	Contents								No. of Hours
I	<b>Capital Gains</b> Capital Assets – Transfer – Short term vs Long term capital assets - Computation of Capital Gains – Exemption under Section 54 , 54B, 54D, 54EC, 54F, 54GA.								18
II	<b>Income From Other Sources &amp; Clubbing of Income</b> Chargeability - Computation of Income from Other Sources – Deductions Allowed – Clubbing of Income – Concept								18
III	<b>Set Off and Carry Forward of Losses and Deductions From Gross Total Income</b> Gross Total Income vs Total Income - Provisions for Set-off and Carry Forward of Losses (Simple Problems). Deductions U/S 80C, 80CC, 80CCB, 80CCC, 80CCD, 80 CCE, 80D, 80DD, 80DDB, 80E, 80EE, 80EEA, 80EEB, 80G, 80GG, 80GGA, 80TTA, 80TTB, and 80U only.								18
IV	<b>Computation of Total Income – Individual</b> Computation of Total Income - Tax Liability of an Individuals (Old regime vs New regime								18
V	<b>Income Tax Authorities</b> Administration of Income Tax Act – Income Tax Authorities – Powers of CBDT – Powers of Income Tax Officer - Procedure for Assessment – Filing of Return – Due Dates of Filing – Voluntary Filing – Return of Loss – Belated Return – Defective Return – Signing of Return – Permanent Account Number (PAN) , e-PAN – Tax credit statement (26 AS) and Annual Information Statement (AIS).								18
<b>TOTAL</b>								<b>90</b>	
<b>THEORY 20% &amp; PROBLEMS 80%</b>									

<b>Course Outcomes</b>	
<b>CO1</b>	Remember and recall provisions on capital gains
<b>CO2</b>	Apply the knowledge about income from other sources
<b>CO3</b>	Analyse the set off and carry forward of losses provisions
<b>CO4</b>	Learn about assessment of individuals
<b>CO5</b>	Apply procedures learnt about assessment procedures.
<b>Textbooks</b>	
1	V.P.Gaur, Narang, Puja Gaur and Rajeev Puri- Income Tax Law and Practice, Kalyani Publishers, New Delhi.
2	T.S. Reddy and Hariprasad Reddy, Income Tax Law and Practice, Margham Publications, Chennai.
3	Dinkar Pagare, Income Tax Law and Practice, Sultan & Chand Sons, New Delhi.
4	Mehrotra H.C, Dr.Goyal S.P, Income Tax Law and Accounts, Sahitya Bhavan Publications, Agra.
5	T. Srinivasan – Income Tax & Practice –Vijay Nicole Imprints Private Limited, Chennai.
<b>Reference Books</b>	
1	Hariharan N, Income Tax Law & Practice, Vijay Nicole Imprints Pvt. Ltd. Chennai.
2	Bhagwati Prasad, Income Tax Law and Practice, Vishwa Prakasan, New Delhi.
3	Vinod K. Singhanian, Students Guide to Income Tax., U.K. Bharghava Taxman, New Delhi.
4	Dr.Vinod K Singhanian, Dr. Monica Singhanian, Taxmann's Students' Guide to Income Tax, New Delhi.
5	Mittal Preethi Rani and Bansal Anshika, Income Tax Law and Practice, Sultan & Chand Sons, New Delhi.
<b>NOTE: Latest Edition of Textbooks May be Used</b>	
<b>Web Resources</b>	
1	<a href="https://www.investopedia.com/terms/c/capitalgain.asp">https://www.investopedia.com/terms/c/capitalgain.asp</a>
2	<a href="https://www.incometaxmanagement.com/Direct-Taxes/AY-2021-22/assessment/1-assessment-of-an-individual.html">https://www.incometaxmanagement.com/Direct-Taxes/AY-2021-22/assessment/1-assessment-of-an-individual.html</a>
3	<a href="https://www.incometax.gov.in/iec/foportal/">https://www.incometax.gov.in/iec/foportal/</a>

**MAPPING WITH PROGRAMME OUTCOMES  
AND PROGRAMME SPECIFIC OUTCOMES**

	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
<b>CO1</b>	3	2	3	2	3	2	3	3	3	2	2
<b>CO2</b>	3	2	2	2	2	2	2	2	3	2	3
<b>CO3</b>	3	3	3	2	3	2	3	3	3	2	2
<b>CO4</b>	3	2	2	2	2	2	2	2	3	2	2
<b>CO5</b>	3	3	3	2	3	2	3	3	3	2	3
<b>TOTAL</b>	15	12	13	10	13	10	13	13	15	10	12
<b>AVERAGE</b>	3	2.2	2.6	2	2.6	2	2.6	2.6	3	2	2.2

**3 – Strong, 2- Medium, 1- Low**



**THIRD YEAR – SEMESTER – VI**

**ELECTIVE - ENTREPRENEURIAL DEVELOPMENT**

Subject Code	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
23UCOAE64-1	5				3	5	25	75	100
<b>Learning Objectives</b>									
<b>LO1</b>	To know the meaning and characteristics of entrepreneurship								
<b>LO2</b>	To identify the various business opportunities								
<b>LO3</b>	To understand the Process of setting up an enterprise								
<b>LO4</b>	To gain knowledge in the aspects of legal Compliance of setting up of an enterprise								
<b>LO5</b>	To develop an understanding of the role of MSME in economic growth								
<b>Prerequisite: Should have studied Commerce in XII Std</b>									
Unit	Contents								No. of Hours
I	<b>Introduction to Entrepreneur</b> Meaning of Entrepreneurship – Characteristics of Entrepreneurship – Types of Entrepreneurship – Self Employment – Difference between Entrepreneurship and Employment – Meaning of Entrepreneur – Traits – Classification – Functions – Entrepreneurial Scenario in India.								15
II	<b>Design Thinking</b> Idea Generation – Identification of Business Opportunities – Design Thinking Process – Creativity – Invention – Innovation – Differences – Value Addition – Concept and Types – Tools and Techniques of Generating an Idea – Turning Idea into Business Opportunity.								15
III	<b>Setting up of an Enterprise</b> Process of Setting Up an Enterprise – Forms of an Enterprise – Sole Proprietorship – Partnership – Limited Liability Partnership Firm – Joint Stock Company – One Man partnership – Choice of Form of an Enterprise – Feasibility Study – Marketing, Technical, Financial, Commercial and Economical.								15
IV	<b>Business Model Canvas and Formulation of Project Report</b> Introduction – Contents of Project Report – Project Description – Market Survey – Fund Requirement – Legal Compliance of setting Up of an Enterprise – Registration – Source of Funds – Modern Sources of Funds.								15
V	<b>MSME's and Support Institutions</b> Government Schemes and Women Entrepreneurship – Importance of MSME for Economic Growth – MSME – Definition – Role of Government Organizations in Entrepreneurship Development – MSME DI – DIC – Khadi and Village Industries Commission – NSIC – NABARD, SICVI, SFC, SDC, EDII, EPCCB. Industrial Estates – Government Schemes – Prime Minister Employment Generation Programme – Women Entrepreneurship in India.								15
<b>TOTAL</b>								<b>75</b>	
<b>Course Outcomes</b>									
<b>CO1</b>	Identify the various traits of an entrepreneur								
<b>CO2</b>	Turn ideas into business opportunities								
<b>CO3</b>	Do feasibility study before starting a project								
<b>CO4</b>	Identify the sources of funds for funding a project								

<b>CO5</b>	Develop an understanding about the Government schemes available for women entrepreneurs
<b>Textbooks</b>	
1	Jayashree Suresh, (Reprint 2017) Entrepreneurial Development, Margham Publications. Chennai.
2	Dr. C.B. Gupta & Dr. S.S. Khanka (Reprint 2014). Entrepreneurship And Small Business Management, Sultan Chand & Sons, New Delhi.
3	Charantimath Poornima, (Reprint 2014.), Entrepreneurship development-Small, Pearson Education, India.
4	RajShankar, (Reprint 2016), Entrepreneurship Theory and Practice, Vijay Nicole and Imprints Pvt. Ltd, Chennai.
5	Vasant Desai, (Reprint 2017). Dynamics of Entrepreneurial Development & Management Twenty Fourth Edition. Himalaya Publishing House. Mumbai.
<b>Reference Books</b>	
1	Anil kumar, Poornima, Principles of Entrepreneurial development, Newage publication, Chennai.
2	Dr. A.K. Singh, Entrepreneurial development and management, Laxmi publications, Chennai.
3	Dr. R.K. Singal, Entrepreneurial development and management, S.K. Kataria publishers, New Delhi.
4	Dr. M.C. Garg, Entrepreneurial Development, New Delhi.
5	E. Gordon, K. Natrajan, Entrepreneurial development, Himalaya publishing, Mumbai.
<b>NOTE: Latest Edition of Textbooks May be Used</b>	
<b>Web Resources</b>	
1.	<a href="https://www.interaction-design.org/literature/topics/design-thinking">https://www.interaction-design.org/literature/topics/design-thinking</a>
2.	<a href="https://www.bms.co.in/steps-involved-in-setting-up-of-an-enterprise/">https://www.bms.co.in/steps-involved-in-setting-up-of-an-enterprise/</a>
3.	<a href="http://www.msme.gov.in/">http://www.msme.gov.in/</a>

**MAPPING WITH PROGRAMME OUTCOMES  
AND PROGRAMME SPECIFIC OUTCOMES**

	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
<b>CO1</b>	3	2	3	2	3	2	3	3	3	2	2
<b>CO2</b>	3	2	2	2	2	2	2	2	3	2	3
<b>CO3</b>	3	3	3	2	3	2	3	3	3	2	2
<b>CO4</b>	3	2	2	2	2	2	2	2	3	2	2
<b>CO5</b>	3	3	3	2	3	2	3	3	3	2	3
<b>TOTAL</b>	15	12	13	10	13	10	13	13	15	10	12
<b>AVERAGE</b>	3	2.2	2.6	2	2.6	2	2.6	2.6	3	2	2.4

**3 – Strong, 2- Medium, 1- Low**

**THIRD YEAR – SEMESTER – VI**  
**ELECTIVE – HUMAN RESOURCE MANAGEMENT**

Subject Code	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
23UCOAE64-2	5				3	5	25	75	100
<b>Learning Objectives</b>									
<b>C1</b>	To explore to the aspects relating of Human resource management								
<b>C2</b>	To equip with the various processes of Recruitment and Selection								
<b>C3</b>	To be acquainted with Training methods and the concept of Performance Appraisal								
<b>C4</b>	To learn about Industrial Relations								
<b>C5</b>	To assimilate knowledge on employee welfare.								
<b>Prerequisite: Should have studied Commerce in XII Std</b>									

Unit	Contents	No. of Hours
I	<b>Introduction to HRM</b> Definition of HRM, Objectives – Importance – Nature- Scope, Role and Qualities of a HR Manager - Human Resource Planning - Meaning, Definition, Importance, Factors Affecting HRP, Process Involved in Human Resource Planning. Human Resource Information System (HRIS) - Job Analysis, Need for Job Analysis, Steps in Job Analysis, Job Description and Specification.	12
II	<b>RECRUITMENT AND SELECTION</b> Definition – Objectives – Factors affecting recruitment – internal and external source of recruitment – Selection Process – Curriculum Vitae – Test- types– Kinds of employment interview – Medical Screening – Appointment Order.	12
III	<b>TRAINING AND DEVELOPMENT</b> Induction – Training – Methods – Techniques – Identification of the training needs – Training and Development – Performance appraisal – Transfer – Promotion and termination of services – Career Development.	12
IV	<b>INDUSTRIAL RELATIONS</b> Industrial Disputes and Settlements (Laws Excluded) – Settling Industrial Disputes in India – Arbitration – Adjudication – Settlement Labour Relation – Functions of Trade Unions – Forms of collective bargaining-Workers’ participation in management – Types and effectiveness.	12
V	<b>EMPLOYEE WELFARE</b> Employee Welfare: Meaning, Objectives, Philosophy, Scope, Limitations, Types of Employee Welfare, Statutory and Non-Statutory Welfare Measures, and Labour Welfare Theories- Social Security, Health, Retirement & Other Benefits- Remuneration – Components of remuneration – Incentives – Benefits	12
<b>TOTAL</b>		<b>60</b>
<b>CO</b>	<b>Course Outcomes</b>	
<b>CO1</b>	Examine the role of HRM in the new age organisation and plan man power requirements and implement techniques of job design.	
<b>CO2</b>	Formulate action plans for employee Recruitment and Selection.	

<b>CO3</b>	Choose appropriate methods of Training
<b>CO4</b>	Estimate, defend and handle legal compliance in HRM involving trade union disputes and employee retention.
<b>CO5</b>	Formulate strategies for employee welfare.
<b>Textbooks</b>	
1	Ashwathappa, Human Resource Management, Tata McGraw-Hill Education, Noida.
2	Mamoria, C.B. and Gaonkar, S.V, Personnel Management, Himalaya Publishing House, Mumbai.
3	Sunil Lalla and Neha Shukla, Human Resource Management, Nirali Prakashan Publishers, Pune.
4	P.Subba Rao, Personnel and Human Resource Management, Himalaya Publishing House, Mumbai.
<b>Reference Books</b>	
1	L.M. Prasad, Human Resource Management, Sultan and Chand sons Publications, New Delhi.
2	DeCenzo, D.A. and Robbins, S.P Human Resource Management, Wiley, India.
3	Dr.K.Sundar and Dr.J Srinivasan, Human Resource Development, Margham Publications, Chennai.
4	Jane Weightman, Human Resource Management, VMP Publishers, Mumbai.
<b>NOTE: Latest Edition of Textbooks May be Used</b>	
<b>Web Resources</b>	
1	<a href="https://hr.university/shrm/strategic-human-resource-management/">https://hr.university/shrm/strategic-human-resource-management/</a>
2	<a href="https://www.investopedia.com/terms/c/collective-bargaining.asp">https://www.investopedia.com/terms/c/collective-bargaining.asp</a>
3	<a href="https://www.yourarticlelibrary.com/human-resource-management-2/employee-welfare/employee-welfare/99778">https://www.yourarticlelibrary.com/human-resource-management-2/employee-welfare/employee-welfare/99778</a>

**MAPPING WITH PROGRAMME OUTCOMES  
AND PROGRAMME SPECIFIC OUTCOMES**

	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
<b>CO1</b>	3	2	3	2	3	2	3	3	3	2	2
<b>CO2</b>	3	2	2	2	2	2	2	2	3	2	3
<b>CO3</b>	3	3	3	2	3	2	3	3	3	2	2
<b>CO4</b>	3	2	2	2	2	2	2	2	3	2	2
<b>CO5</b>	3	3	3	2	3	2	3	3	3	2	3
<b>TOTAL</b>	15	12	13	10	13	10	13	13	15	10	12
<b>AVERAGE</b>	3	2.2	2.6	2	2.6	2	2.6	2.6	3	2	2.2

**3 – Strong, 2- Medium, 1- Low**

**THIRD YEAR – SEMESTER - VI****ELECTIVE – R LANGUAGE**

Subject Code	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
23UCOAE65-1		2	3		3	5	25	75	100
<b>Learning Objectives</b>									
<b>LO1</b>	Acquire programming skills in core R Programming								
<b>LO2</b>	Acquire Object-oriented programming skills in R Programming.								
<b>LO3</b>	Develop the skill of designing graphical-user interfaces (GUI) in R Programming								
<b>LO4</b>	Acquire R Programming skills to move into specific branches								
<b>Prerequisite: Should have studied Commerce in XII Std</b>									
<b>List of Exercises</b>									
	<ol style="list-style-type: none"> <li>1. Data In R</li> <li>2. Reading And Writing Data</li> <li>3. R And Databases</li> <li>4. Dates</li> <li>5. Factors</li> <li>6. Subscribing</li> <li>7. Character Manipulation</li> <li>8. Data Aggregation</li> <li>9. Reshaping Data Basics</li> <li>10. The R Environment</li> <li>11. Probability And Distributions</li> <li>12. Descriptive Statistics and Graphics</li> <li>13. One- And Two-Sample Tests</li> <li>14. Regression And Correlation</li> <li>15. Analysis Of Variance And The Kruskal–Wallis Test</li> <li>16. Tabular Data</li> <li>17. Power And The Computation Of Sample Size</li> <li>18. Advanced Data Handling</li> <li>19. Multiple Regression</li> <li>20. Linear Models</li> <li>21. Logistic Regression</li> <li>22. Survival Analysis</li> <li>23. Rates And Poisson Regression</li> <li>24. Nonlinear Curve Fitting</li> </ol>								
<b>TOTAL</b>									
<b>Course Outcomes</b>									
<b>CO1</b>	To understand the problem solving approaches								

<b>CO2</b>	To learn the basic programming constructs in R Programming
<b>CO3</b>	To practice various computing strategies for R Programming -based solutions to real world problems
<b>CO4</b>	To use R Programming data structures - lists, tuples, dictionaries.
<b>CO5</b>	To do input/output with files in R Programming

**MAPPING WITH PROGRAMME OUTCOMES  
AND PROGRAMME SPECIFIC OUTCOMES**

	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
<b>CO1</b>	3	2	3	2	3	2	3	3	3	2	2
<b>CO2</b>	3	2	2	2	2	2	2	2	3	2	3
<b>CO3</b>	3	3	3	2	3	2	3	3	3	2	2
<b>CO4</b>	3	2	2	2	2	2	2	2	3	2	2
<b>CO5</b>	3	3	3	2	3	2	3	3	3	2	3
<b>TOTAL</b>	15	12	13	10	13	10	13	13	15	10	12
<b>AVERAGE</b>	3	2.2	2.6	2	2.6	2	2.6	2.6	3	2	2.2

**3 – Strong, 2- Medium, 1- Low**

**THIRD YEAR – SEMESTER - VI**

**ELECTIVE –PRACTICAL TALLY**

Subject Code	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
23UCOAE65-2		2	3		3	5	25	75	100
<b>Learning Objectives</b>									
<b>LO1</b>	Examination of general accounting applications as they apply to computerized financial records for each step of the accounting cycle to the completion of financial statements, as well as management accounting applications.								
<b>Prerequisite: Should have studied Commerce in XII Std</b>									
<b>List of Exercises</b>									
	<ol style="list-style-type: none"><li>1. Preparation of Trial Balance - preparation of profit and loss accounts, Balance sheet</li><li>2. Interest simple, compound interest calculation. Setting ledger master, Interest report.</li><li>3. Receivable and payable management, meaning activating bill wise details, all types of entries</li><li>4. Cost Centres and Category summary, cost centre breakup ledgers and group breakup outstanding receivable and payable, interest receivable and payable, statistics, cash and fund flow daybook list of account reversing journals, optional vouchers.</li><li>5. Budget Budgetary control creation of budget, group budget Budgetary ledger creation alteration of budget deletion of budget.</li><li>6. Introduction to GST, Getting started with GST, Transferring Input tax to GST, Interest supply of goods, GST reports</li><li>7. Recording advance entries, Exports, Imports, Exempted Goods, Adjustment and Return filing, GST tax payments</li><li>8. Electronic Commerce Introduction, Tax Collected at Source (TCS), Procedures for E-commerce Operator, Input Tax Credit: - Introduction, Important Points, Input Service Distributors</li><li>9. Matching of Input Tax Credit, Returns, GSTR-2, Other Taxable Persons, Annual Return, Overview of the IGST Act, Overview, Other Provisions.</li><li>10. GST Portal, Introduction, GST Eco-system, GST Suvidha Provider (GSP), Uploading Invoices</li></ol>								
<b>TOTAL</b>									
<b>Course Outcomes</b>									
<b>CO1</b>	input journal entries, adjust entries and prepare financial statements for cash and accrual-based businesses								
<b>CO2</b>	record vendor, customer, and inventory transactions essential for maintaining accounts payable, accounts receivable, and inventory subsidiary ledgers								

**THIRD YEAR – SEMESTER - VI**

**PROFESSIONAL COMPETENCY SKILL**

**GENERAL AWARENESS FOR COMPETITIVE EXAMINATION**

Subject Code	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
23UCOAF66	2				2	2	25	75	100
<b>Learning Objectives</b>									
LO1	To create the opportunity for learning across different disciplines and builds experience for students as they grow into lifelong learners.								
LO2	To build experiences for students as they grow into lifelong learners.								
LO3	To know the basic concepts of various discipline								
<b>Prerequisites: Should have studied Commerce in XII Std</b>									
UNIT	Details								No. of Hours
I	<b>Indian Polity</b> Basics concepts- Three organs of Indian government (Executives, Legislature, Judiciary), Introduction to Indian Constitution – Salient features of constitution, Preamble, Fundamental rights, Fundamental duties, Directive Principles of State policy, Types of Majority, Amendments to the Constitution, Basic structure Doctrine, Division of subjects between the union and the states local Governance, Elections in India and Election Commission, CAG.								6
II	<b>Geography</b> Major oceans of the world –Important Canals – Gulfs – Straits and passes – Indian Rivers and its Tributaries – Climatology – Atmosphere, Wind systems, Clouds systems, World climatic classification – Indian climate – Indian Monsoon – Indian’s physical features, Indian Soil types and Distribution – Importance Trade routes and projects, Indian natural vegetation – Indian agriculture- Major crops and its distribution, Indian Industries and its Distribution.								6
III	<b>Economy</b> National Income – Inflation – Money and Banking - Agriculture in India – Union Budget – Planning in India – Poverty – Unemployment – Inclusive Development and Development issues – Industrial polices – Financial Markets.								6
IV	<b>History</b> Modern India – formation of Indian National Congress – Morley Minto Reforms, Revolutionary activities – World War I and India’s Response – Home Rule league – Montague Chelmsford reforms – Rowlett Act – Non – Cooperation Movement – Simon commission and Nehru Report – Civil Disobedience Movement and Round Table conferences – Quit India Movement and Demand for Pakistan – Cabinet Mission – Formation of Constituents Assembly and partition of India.								6
V	<b>Environment and Ecology</b> Basic concepts – Ecology, Biodiversity- Food chain and food web – Bio Geo Chemical Cycles – International Bio Diversity organisations- International Conventions – Conferences and Protocol – Indian Environmental laws and Environment Related organisation								6
<b>TOTAL</b>								<b>30</b>	
<b>Course Outcomes</b>									
CO1	Develop board knowledge of the different components in polity								
CO2	Understand the Geographical features across countries and in India								



<b>CO3</b>	Acquire knowledge on the aspects of Indian Economy
<b>CO4</b>	Understand the significance of India's Freedom Struggle
<b>CO5</b>	Gain knowledge on Ecology and Environment

<b>Textbooks</b>	
1	Class XI and XII NCERT Geography
2	History – Old NCERT'S Class XI and XII
<b>Reference Books</b>	
1	M. Laxmi Kant (2019), Indian polity, McGraw- Hill
2	Ramesh Singh (2022), Indian Economy, McGraw - Hill
3	G.C Leong, Physical and Human Geography, Oxford University Press
4	Majid Hussain- India Map Entries in Geography, GK Publications Pvt, Ltd.
<b>NOTE: Latest Edition of Textbooks May be Used</b>	
<b>Web Resources</b>	
1	<a href="https://www.freebookkeepingaccounting.com/using-excel-in-accounts">https://www.freebookkeepingaccounting.com/using-excel-in-accounts</a>
2	<a href="https://courses.corporatefinanceinstitute.com/courses/free-excel-crash-course-for-finance">https://courses.corporatefinanceinstitute.com/courses/free-excel-crash-course-for-finance</a>
3	<a href="https://www.youtube.com/watch?v=Nv_Nnw01FaU">https://www.youtube.com/watch?v=Nv_Nnw01FaU</a>

